

Educational Provision for Officers of the Royal Navy

1857 - 1877

by

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Abstract

This thesis examines the nature and extent of initial and higher education for officers of the Royal Navy from 1857 to 1877 - a period that constituted the most vigorous years of educational reform in the history of the Service. That this activity should arise in a period of general stasis in naval affairs, is the central paradox this work seeks to explore.

To this end the system of examination and entry into the Service is explained and the origins and development of the training ship HMS Britannia are identified. Existing assessments of her curriculum and routine are challenged and the various attempts to found an alternative shore based college are outlined.

The extent and efficiency of education conducted post-Britannia in operational warships is also discussed and the efficiency of the sea-going Naval Instructor system is questioned.

In higher education the work of the Royal Naval College Portsmouth and its successor at Greenwich is considered and in particular the process by which this more expensive, overwhelmingly less popular institution was chosen as the Navy's new higher education establishment, is analysed and explained.

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Introduction

In June 1897 the Queen's Diamond Jubilee Review provided the greatest display of naval force the world had ever seen. At Spithead more than 160 modern warships were assembled in a vivid demonstration of the nature and quality of British sea power. Only modern vessels were deployed and not a single foreign station had been weakened to provide a spectacle of almost 30 miles of ships-in-line. The number of personnel borne, at 92,322, was the highest since the end of the Napoleonic wars and the Estimates for 1897, in excess of £22 million, had never previously been equalled. Such a lavish organisation was fully in accordance with the public mood for a country that dressed its children in sailor suits and created a whole body of 'genre' art, around images of the Royal Navy. 'All classes', Marder has suggested, 'had or thought they had something to gain from the growth of the Navy'.¹

Yet the most striking aspect of this demonstration of naval power and public enthusiasm often taken to be synonymous with the Victorian era, was that it was in sharp contrast to the bulk of the nineteenth century naval experience. Just a decade before the Diamond Jubilee Review for example, the ships taking part in a similar evolution were described by one Admiral as 'a motley collection of ancient constructions' and by another as 'mere ullage'.² Their unsatisfactory state was emphasised

by a series of accidents and collisions that indicated equally poor levels of training and efficiency of those who operated them. This was undoubtedly a more typical picture of the Royal Navy in the Victorian era. In contrast to the glittering display and public enthusiasm of the last decade, for the bulk of the nineteenth century the Service was a relatively small, overworked, chronically ill-manned institution struggling to come to terms with a plethora of policy objectives and technological innovation.

This thesis examines the years 1857 to 1877, a period when the fortunes of the Royal Navy were arguably at their lowest. In the introduction the background and nature of the Service at this time, particularly in terms of politics, finance, administration and personnel will be summarised so that educational developments within the organisation may be properly understood. A sound grasp of the wider naval context is particularly important, for these years have been seen as 'the dark ages of the Victorian navy',³ and an era where the Service was content to see itself as 'apart from all ordinary knowledge involving a mass of technicalities and contradictions not to be unravelled by inexperienced persons'.⁴ The second part of the introduction surveys the extent and nature of previous comment on the period. In particular, it examines existing accounts of the development of naval education, so that a datum for the purposes of contrast and comparison on the subject may be established.

Finance and Politics

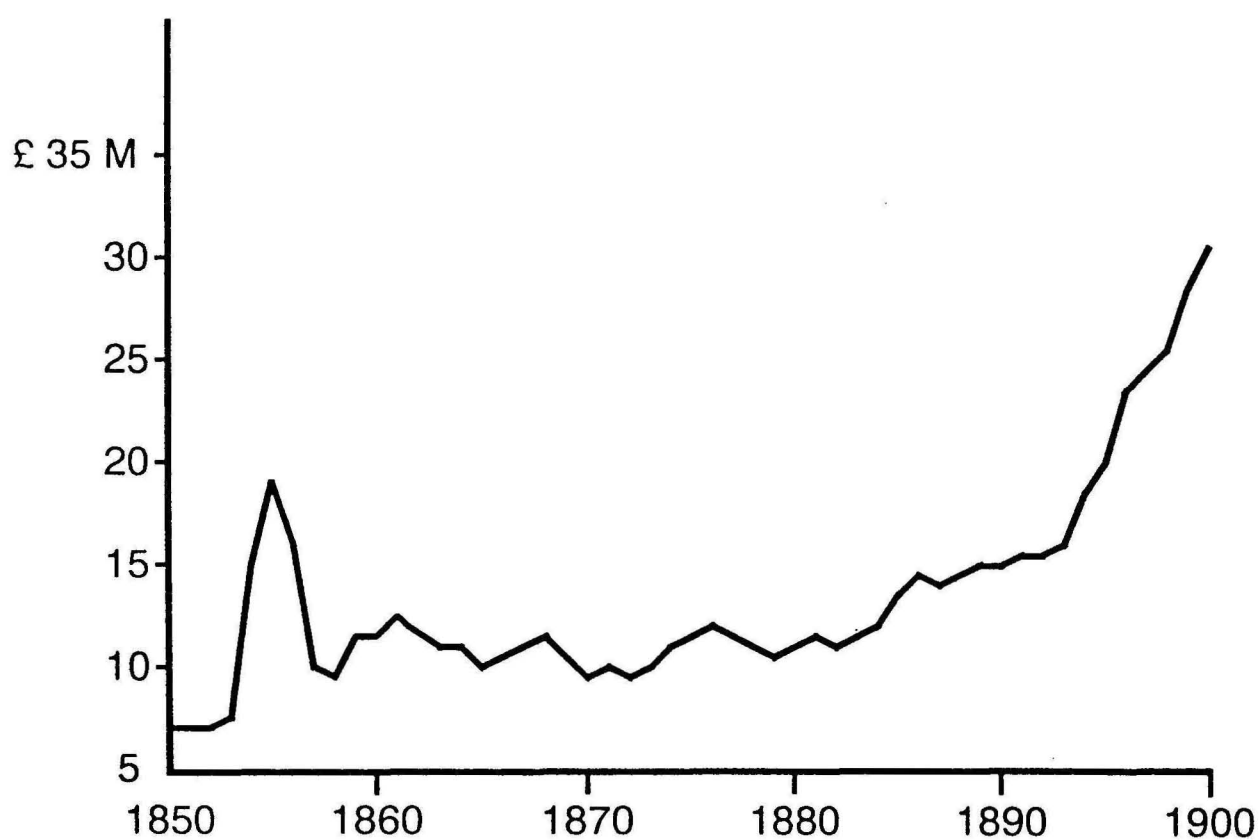
Any attempt to scrutinise the activities of the mid-Victorian Royal Navy must commence with some appreciation of its financial context and in particular the fluctuation of the yearly sums voted in the Estimates. In general terms spending falls into three principal and distinct periods. For about 25 years after Victoria's accession there was a gradual approximately three fold increase in naval spending, which supported a doubling of the numbers of seamen and boys voted. This situation was maintained for several years after the Russian wars, principally in response to French ironclad construction. From 1862 expenditure began to fall and although there were fluctuations over the following 25 years, the 1862 figure was not matched again until 1885. Thus for over two decades the Estimates were relatively static. The third distinct phase in naval spending is apparent with the advent of rumours of a Franco-German alliance and an increase in foreign ship building programmes synthesised in the 'naval scare' of 1884. In the next 15 years both the Estimates and the number of personnel in the Service doubled, as the international naval rivalry which was to characterise the late Victorian era took a grip on the politics and public interest of the country.

The years of this study coincide largely with frugality and general stasis in naval spending. The exception was the period of four years from 1857, which through a combination of invasion fever and concern about

Table A

The Royal Navy 1850-1900

Total Naval Supplies Granted



new construction in the French navy saw the Estimates rise from almost £10 million to well over £12 million in 1861. However, this figure represented the zenith of naval spending and was not matched again for more than 20 years. Year by year attempts were made to limit the budget and by 1869 it had fallen below £10 million for the first time in a decade. Although it rose slightly after 1870, it only once exceeded £12 million up to 1885 and financial retrenchment remained the primary aim. (See Table A). Thus despite the numerous international calls on British naval assets and the need to fund a technological revolution in ship design, this was an era when the Service, year by year, represented less of a burden upon the national economy. It is doubtful, suggests Bartlett, whether at any other time Britain was able to purchase security at so cheap a price.⁵

Politically the early years of the period were dominated by Liberal government. The exception was the brief interlude from February 1858 until July of the following year, when the Conservatives under Lord Derby, with Sir John Pakington as First Lord, formed the administration. Their policy favoured an overall strengthening of Navy in response to a French challenge, particularly in ironclad construction. Thus in February 1859 Pakington asked for an increase of about £1 million over the previous years spending, noting that 'whatever may be the cost we have no option in the discharge of our duty but to commence the construction of ironclad ships'.⁶

The programme was duly initiated in April, amid growing

fears of an invasion threat and public concern about Britain's wartime capability.

To some extent these were factors that could be exploited by the succeeding Liberal government under Palmerston, with the Duke of Somerset as First Lord, which came to power in July 1859. Yet any naval expansion they proposed, while finding support from the Crown, the Conservatives and a large section of the electorate, often foundered within their own party. Even the Cabinet contained men of every shade of Liberal opinion from Whig aristocrat to Cobdenite radical and while The Times suggested that 'There never was a more powerful cast...'⁷, the result was that every budget brought a fight over naval expenditure. Despite a deep rooted desire from Gladstone and the Treasury to achieve economies in the Service budget, fear of the French and the considerable range of foreign policy objectives that required naval support, made economies difficult to achieve up to 1862. After this the Estimates declined yearly to the end of the Ministry, although the tension over spending remained - Gladstone recording in his diary in 1865, 'Estimates always settled at dagger's point'.⁸ The arrival of the Derby administration with Disraeli as Chancellor in June 1866 thus brought little change in attitude towards the purposes and costs of the Navy. Although the 1867 and 1868 estimates represented a slight increase at £11.4 and £11.7 million respectively, Disraeli who was increasingly taking the work load of the ailing Derby, stoutly resisted the latest Admiralty demands for

more ironclads which had been prompted by alleged increases in the French and Russian ship building programmes. His view was much in accord with the Liberal argument that if more capital ships were required, they must be purchased by cutting expenditure on distant stations.

The fall of Disraeli in 1868 and the subsequent election of the Liberals allowed Gladstone's persistent attacks upon naval expenditure to come to fruition under a controversial new First Lord, H C E Childers. Although he only held office for a little over two years, his single-minded drive further to reduce naval spending demonstrated 'a degree of ruthlessness in favour of economy which was to dismay even some of the advocates of retrenchment'.⁹

Childers introduced a scheme to combat fluctuations in dockyard labour, and the Royal yards at Woolwich and Deptford which had been under threat for some years, were finally closed. Savings were made in the Admiralty workforce, and an improving international situation lightened the burden of the ironclad construction programme. The principal reductions were achieved by cuts and re-distribution amongst the overseas squadrons, where a considerable proportion of money and manpower was invested. While this could not be achieved immediately, the momentum to reduce squadron strength in the Pacific and in South America by one half, and in China and the West Indies by one third was established, although inaccurate targetting meant that the opportunity both to reduce expenditure and improve efficiency was lost. By

the time Childers left office in March 1871 the Estimates were below £10 million and the number of seamen and boys voted was in dramatic decline.

George Goschen who succeeded Childers has been seen as the necessary skilful and tolerant administrator required to modify the excesses of his predecessor. Yet while he undoubtedly cut a more statesmanlike figure, attempting to provide coordination and encouraging discussion among Board members, in terms of naval economy he had very little room to manoeuvre. The degree of parsimony achieved by Childers left few areas untouched and Goschen was often forced to advise that further reductions were impossible. Thus despite Gladstone's desire for a pre-election financial triumph, the naval estimates could no longer provide the required flexibility and stayed almost static until the end of the Liberal government in February 1874.

The next six years of Conservative rule witnessed no fundamental change in naval policy and expenditure and although the Estimates very gradually increased over the period, it was not indicative of any difference in philosophy. While attempts were made from within the Admiralty to emphasise the French threat of a 'guerre de course' and to encourage a rapid frigate/gunboat building programme to protect trade, such arguments went unheeded. The principal problem for the advocates of naval expansion was that for Liberal and Conservative alike it was difficult to take the foreign threat seriously, or at least seriously enough to countenance any naval expansion.

As Rodger has suggested, the politicians of the 1870s were neither stupid or unpatriotic men but they did not think in terms of a real threat from foreign enemies. For men of their outlook it was natural and proper to treat naval affairs almost entirely from a financial standpoint.¹⁰

The result was that throughout Disraeli's term of office and for several years into the succeeding Liberal government, the money and personnel voted each year remained relatively unchanged.

It will be noted that, throughout the two decades covered in this thesis, naval economy was one of the principal means of achieving cuts in public expenditure. In this respect it is difficult to identify any significant difference in party political approach to the process of reducing the Service as a burden upon the national economy. That successive governments were able to conduct themselves in this manner was largely due to a generalised public apathy towards naval affairs. Although the majority agreed that a strong navy was important, while Britain remained nominally the major sea power, this acted as a disincentive to popular enquiry into naval matters. For almost the whole of the period politicians could rely upon a general public disinterest, outside the naval ports, on naval matters, and thus political contention remained subordinate to the common drive to reduce expenditure.

Administration

While at the start of the period there was some justification in Sir John Pakington's complaint that 'any man who wants to write a pamphlet or make a speech cannot do better than attack the Admiralty',¹¹ a comment echoed by his successor as First Lord that 'the human memory cannot recall a period when the department of the Admiralty was not the subject of accusation and complaint',¹² it is clear that by 1857 the institution was in dire need of reform. The principal problem identified in the climate of financial stringency was that the Admiralty was a large expensive department with a degree of autonomy that rendered it difficult for the Treasury, or even Parliament, to control. More seriously there were structural and organisational weaknesses which made it impossible to assign responsibility to individual Board members, while simultaneously saturating them with administrative detail.

The necessity for Admiralty reform was recognised, and a Select Committee of former First Lords was asked to consider the question during the Palmerston administration, 1859-65. However, in the wake of the disasters of the Crimean War, the War Office offered a more urgent target and the Admiralty, while it remained tolerably efficient, was allowed to proceed unhampered. For the first ten years of this study the institution was parochial to the extent that the Secretary to the Board was said to open and read all mail personally.¹³ There were virtually no

naval staff with the exception of the Naval Lords themselves and all matters requiring professional judgement, no matter how trivial, were considered at the highest level. The result was that, by 1868, the influence of the senior political appointee, the First Lord, had become diminished, and determination of general policy had been sacrificed in favour of the detail of administration.

Thus the first decade of this study witnessed First Lords in Wood, Pakington, Somerset and Corry who were diligent, earnest and not lacking in spirit, yet whose achievements were modest. While the brunt of any public indignation might fall on the occupants of office, the fault in Admiralty administration lay deeper - the combination of financial stringency and administrative unwieldiness often defeating efforts to secure measures that had First Lords' personal support. It was indicative of this that Somerset, First Lord from 1859 to 1865, the senior political member and a man of some spirit, spoke resignedly of seeking to persuade his colleagues with 'such influence as I may possess'.¹⁴

As in the area of naval expenditure it was the opening years of the Gladstone administration, 1868-74, with Childers as First Lord, that saw radical reorganisation in Admiralty affairs. Within a month of taking office he had altered the composition of the Board, which from January 1869 was to consist of four civilian and three nominally naval posts. The civilians comprised three members of Parliament holding posts as First Lord, Civil Lord and Parliamentary Secretary - the fourth being

the Secretary to the Admiralty Board. The naval posts were reduced to three; the First Naval Lord, the Controller of the Navy and the Junior Naval Lord. This restructuring, which made each Naval Lord executive head of a branch and required him to report directly and separately to the First Lord, was intended to establish clearly defined responsibilities. While to some extent this was achieved, the balance of power was tilted in favour of the politicians and gave a high degree of autonomy to the First Lord in particular. This was exploited by Childers who decreed that all members should consult with him individually, but that all other communication should be conducted in writing.

The result was the virtual dismantling of the Navy's principal executive body and although nominal responsibilities were assigned to the Naval Lords, there was little group discussion. From the 1869 reorganisation it was the First Lord who not only decided on important matters, but who set the agenda for such decisions. As Rodger has noted, henceforth the First Lord 'was neither obliged in theory nor accustomed in practice to encourage any private discussion among members of the Board'.¹⁵ This body which met more than 200 times in 1866 was by 1870 reduced to holding brief weekly meetings for the purposes of formal approval.¹⁶ In this manner important orders retained an appearance of collective responsibility, although in fact all consensus had disappeared.

While there was no doubt that some form of radical reorganisation of the Admiralty was required, the Childers' measures simply substituted a new set of difficulties. Lacking the opportunity for consensus the Naval Lords now operated largely in ignorance of the First Lord's decisions, and the requirement to communicate solely in writing slowed procedure and created administrative confusion. The new system which had meant to increase personal responsibility instead reduced all decisions, no matter how important, to administrative detail. Ironically it was the question of personal responsibility that led to Childers' downfall as he attempted to exonerate himself from the loss of the experimental turret ship, HMS Captain - a vessel whose stability had been seriously questioned, yet whose maiden voyage he had personally sanctioned. He resigned from office in March 1871.

The 1869 reorganisation effectively established the working nature of the Admiralty Board until the end of the period. Childers' measures were made more workable by his successor, G J Goschen, an expert administrator who reinstated frequent Board meetings and perhaps most notably appointed a First Lord who had previously served a Tory administration - thus recognising the position as a professional rather than a party appointment. Yet the basic flaws in reorganisation remained and could do so unaddressed, while naval affairs remained on the periphery of political life.

The relevance of Admiralty affairs to this study is two fold. Firstly, at no time in the period can the Admiralty be accurately portrayed as a central authority providing firm direction and control of naval affairs. In the field of education and training for example, while the Junior Naval Lord, and after the Goschen re-alignment of 1872, a combination of Junior and Second Sea Lord, had responsibility for this area of activity,¹⁷ there is little evidence of a cohesive policy towards the subject, and innovation appears to be the result of individual and unrelated initiatives. The Childers' reorganisation, which reduced Board meetings to a formality while maintaining a visage of joint responsibility, allowed individuals to exercise an influence out of all proportion to their formal position within the organisation and thus policy origins are easily obscured behind the bland phrase 'by Command of their Lordships'.

The second point of relevance is to note the shift in the balance of power at Board level towards the political element and in particular the First Lord - a phenomenon that makes the Childers administration a watershed in the years covered by this study. In 1859 the Duke of Somerset as First Lord could not conceive of a situation where he would overrule the naval members of the Board, yet ten years later important decisions had become the sole prerogative of the senior politicians, with the naval staff reduced to assistant status. While internally this power shift was significant, it should not be identified with an increase in wider political power. At Cabinet level naval

affairs continued to be of little significance and their consideration was virtually synonymous with reduction in public expenditure. Thus although the 1870s saw capable and conscientious First Lords in George Ward Hunt and W H Smith who possessed considerable degrees of autonomy and were not averse to reform, they carried little political weight. Within the all pervading climate of financial stringency even these skilful administrators could seldom satisfy the demands of their naval counterparts.

Personnel - Ratings

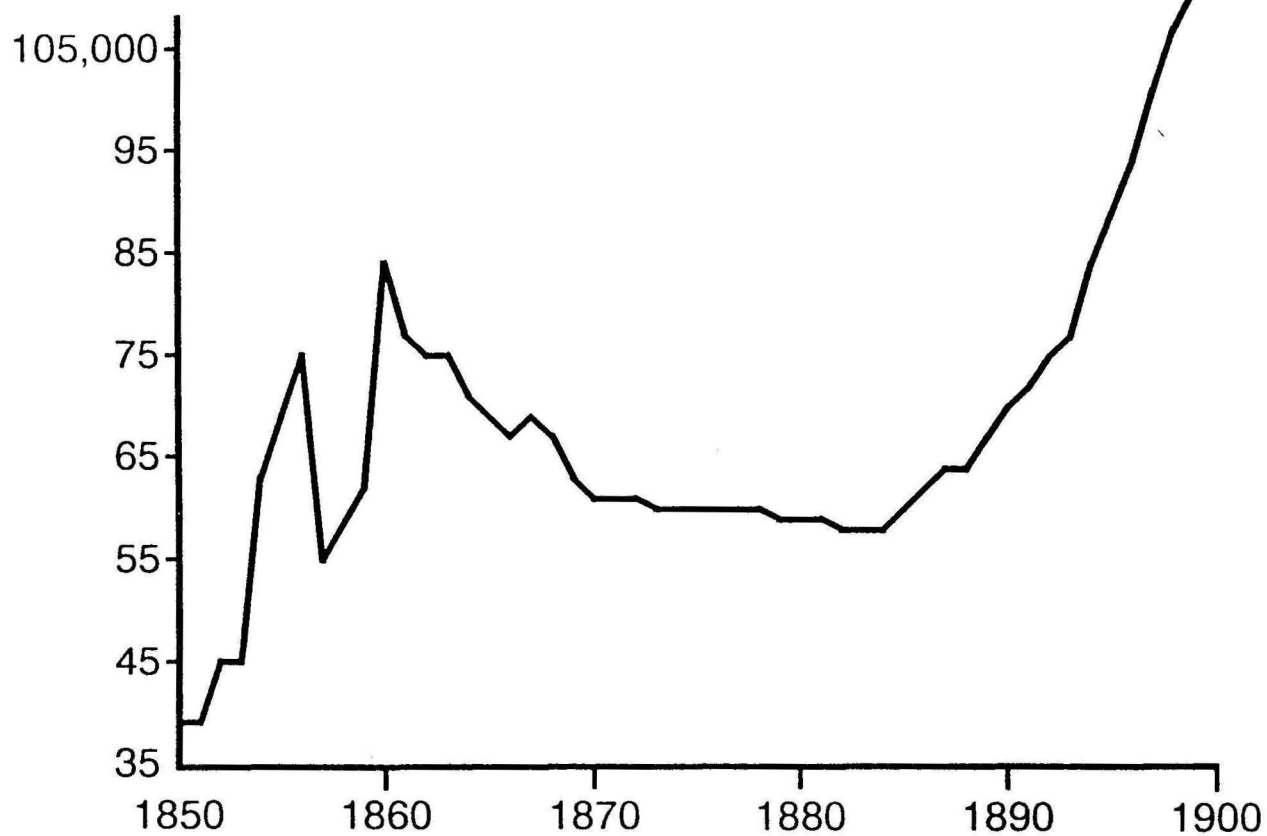
While the economic and political background of the period was one of financial stringency and political domination, the view that the Admiralty was totally restrained by these influences and thus, denying themselves the opportunity for reform 'they resolutely shut their eyes to any and every new invention'¹⁸ is quite inaccurate. In certain areas of naval activity the years 1857 to 1877 were characterised by innovation and reform, much of which arose directly from the processes of retrenchment already discussed. This may be acutely observed in the traditionally vexatious area of personnel, where conditions of life and work underwent a transformation that fundamentally changed the lot of the British sailor.

Despite the plentiful number of small ships and the widely-dispersed nature of their operations, the actual requirement for lower-deck personnel during the period was relatively low. The 1860 figure of 84,100, total numbers

Table B

The Royal Navy 1850-1900

Total Number Of Personnel Voted



voted, was not matched for a further 34 years and from 1870 the complement never exceeded 61,000 (See Table B). Yet although this requirement was modest and the pool of experienced men substantial, a chaotic manpower situation on the lower deck persisted for some years. While boys were provided by the flagship and marines retained in barracks, there was no effective standing body of seamen and the central core of the ship's fighting strength continued to be recruited in an 'ad hoc' manner. This required the Captain and officers of a newly-commissioned ship to find their own crew, usually by advertisement in the major seaports. Gradually, depending on the popularity of the commanding officer, name of the ship and destination, sufficient volunteers were found and the ship sailed. At the start of the period the remnants of this chaotic system were still extant, with HMS Renown and HMS Marlborough commissioned in 1857 and 1858, delayed for 172 days and 129 days respectively, for lack of crew.¹⁹

The problem was gradually resolved during the period. An important step had been taken in 1853 when a committee appointed by the first Derby administration had laid the foundations of a sailor's career structure by recommending that all boy entrants should be engaged for ten years 'continuous and general service'. Seamen gunners, on account of the specialist training invested in them, were already required to enlist for five years, and the Royal Commission on Manning reporting in 1859 supported the concept of a body of trained seamen to be retained and drafted as required. By 1865 nine tenths of the personnel

were serving on continuous engagements, and by the 1870s only a handful were retained on the old terms.²⁰

The advent of a career structure provided the impetus to improvements in discipline, pay and conditions that transformed lower-deck life. If the sailor was asked to reject the old hire and discharge system in favour of a long-term commitment to the Service, then shipboard conditions of drudgery and danger that differed little from the days of the Napoleonic wars had to be improved. Equally importantly the changing demands of the technological and mechanical revolution within the Service meant that the Admiralty were now looking not only for a longer commitment but also for a higher calibre recruit, and hence living and working in warships had to be made more amenable.

The improvement in the sailor's lot had important implications for the quality and organisation of the officer corps. If higher calibre personnel were being attracted to the Service, then the quality of their leaders was inevitably subjected to scrutiny. In this regard the investment in boys' training as a means of relieving the manning problem was a vital one, for the quality of the products of the training brigs was self-evident. The 1859 Royal Commission on Manning noted that such boys 'inevitably constitute from their superior education and training the most valuable part of the crews of HM Ships',²¹. One serving Captain was more forthright, noting that when a boy 'just drafted from the training ship and Naval Cadets fresh from shore met on the

quarterdeck or in a boat, the former was more capable of taking the command'.²²

Personnel - Officers

In fact the overall state of the officer corps in 1857 was almost as chaotic as that of the lower deck, although for quite different reasons. While, generally, there were insufficient men willing to serve on the lower deck, the number of commissioned officers was excessive, with the 'active and employed' element representing a very small percentage of the total officer corps. The problem had its origins in the drastic reduction in naval operations in the wake of the Napoleonic wars that left large numbers of officers unemployed. In three decades of peace the limits of individual service -the method of entry and exit from the Navy had not been satisfactorily defined. By 1857 the result was that officer entry in terms of both standard and numbers required was still relatively random and, despite considerable efforts by the Admiralty in the previous decade, the concept of a scheme of retirement was only slowly to emerge.

The period was notable for dramatic improvements in determining these limits of service, and while the heirarchical class orientated basis of the Wardroom remained relatively unchanged, it was during these years that the profession of naval officer became 'for the first time an ordered stream lined, state regulated affair'.²³ The institution of a training ship for officers was synonomous with the regulation of entry, for with the issue of Admiralty Circular 288 on 23 February 1857 every

nominated candidate who succeeded in passing the examination at the Royal Naval College Portsmouth would 'at once be appointed to a Training Ship at Portsmouth or Devonport for a period of not less than three months for the purpose of instruction'.²⁴ This brought to an end the chaotic system of allowing individual Captains to enter Cadets into their own ship, thus effectively choosing the next generation of officers on a highly subjective basis, with little Admiralty control. While the system of nomination was to remain a bastion of privilege and contention, and while there were isolated cases of Cadets avoiding the training ship or joining the Service over age,²⁵ the period witnessed the triumph of bureaucratic control in determining the number and quality of entrants.

The size of the officer intake in the years of this study varied considerably, and may be seen as falling into two distinct periods. From the advent of the training ship system until the late 1860s the number was governed largely by promotions or vacancies in the higher ranks. As the Mates/Sub Lieutenants list was considered too small and the number of Lieutenants acknowledged as 'being inadequate to the needs of the Service',²⁶ the Cadet entry in the early part of the period was both large and subject to considerable fluctuation. The 1859 figure of 236, for example, was double that of two years previously and considerably in excess of the 153 average of the 1860s.²⁷ From 1870 with the advent of limited competition which decreed that 148 nominated candidates would compete for the 74 places available annually,²⁸

the situation became more stable. Although absolute nomination was reintroduced in 1875, the number of candidates remained at between 70 and 80 per year until the end of the period, with the Admiralty finally establishing regularity and order into the recruitment of its young officers.

The creation of an orderly exit from the Service was also achieved during these years. In the wake of the massive expansion of the officer class provoked by the Napoleonic wars there were still large numbers of elderly and inefficient officers serving in the early years covered by this study. Although serving, they were very seldom employed - in January 1865 only 19.6% of all Flag Officers were in this category²⁹ - but they did effectively clog the Navy List and deny their juniors realistic chances of promotion. The problems of entry and exit were thus closely linked, for by 1870 these poor prospects and the subsequent lack of incentive had produced a shortage of junior and mid seniority officers as the system of advancement was effectively choked.

The detailed means by which retirement was achieved are not strictly relevant to this thesis, although it may be noted that only when the retirement problem was solved, was the size of the entry satisfactorily regulated and the education process stabilised. This was established in 1870 when the Childers administration introduced a statutory retirement age and realistic pension for each rank. As with all the Childers reforms this produced a stream of protest but its value was undeniable, for it meant that for the

first time there was true bureaucratic control over the size of the officer corps. From about 1870 the Royal Navy was able to educate a predictable number of Cadets and to offer the most able and intelligent early promotion based on merit. In this sense it was an essential prerequisite for entry into the machine age.

The large number of elderly unemployed officers existing on half pay, yet theoretically liable for appointment, has tended to distort assessments of the overall calibre of the officer class of the period and in particular to denigrate its receptivity to technological change. While the Russian wars had enabled incompetent senior officers to return to sea after absurd lengths of service on half pay, and while such men had been largely responsible for the Navy's mediocre performance, they were far from typical of the officer corps. Despite modern assessments that the officer cadre was 'nostalgic in its regard for sail' and that it took 'a long time to digest vast technological changes',³⁰ it will be argued that at junior and mid-seniority level the opposite was the case and that a high priority was placed on the advancement of science and technology within the Service.

The period of this study witnessed more changes in the design and construction of warships than at any time in the previous four centuries. In 1857 the First Lord of the Admiralty still considered that armoured ships had not been subjected to conclusive examination under fire and consequently had little interest in sea-going ironclads.³¹ As late as 1859, with the government in a quandry about

French competition and the effectiveness of the ironclad, for a brief period the work on wooden walled line of battle ships was actually speeded up. Yet by the end of the period HMS Inflexible had been launched. Displacing almost 12,000 tons, she carried 4 x 16" guns and had thicker armour plate than any ship before or since. Her underwater armoured deck was to develop as a standard feature of all navies and she was rightly regarded as a milestone in the history of British naval architecture.³² To come to terms with such advances, many of which were achieved within the span of an individual career, required acumen and foresight. As the Official Historian noted, while in 1857 the good executive officer differed little from his counterpart in 1805, by the end of the period he had to be 'not only a seaman and gunner, but also something of an engineer, something of a physicist, something of a chemist and much more'.³³

Yet the challenges of the era were not solely technological for there was an important and extensive dimension of naval activity far removed from technical innovation and encompassing a considerable manpower requirement. The defence of trade in distant waters was an important area of British naval operations throughout the period, with distant commands established in North America, the Pacific, East Indies, China, Cape of Good Hope and from 1859, Australia. Rarely were these stations awarded more than one capital ship³⁴ and 'the small wars and those too soon forgotten police duties which confer so many benefits upon the Empire'³⁵ were largely fought by small ships commanded by relatively junior officers, who were required

to demonstrate considerable degrees of resourcefulness and independence when far removed from senior authority. It has been noted that for the Royal Navy, although the Victorian era was in some sense one of general peace, it was anything but generally peaceful.³⁶ The service records of its junior and mid seniority officers confirm the extensive catalogue of active service in remote areas under great hardship, that underpinned the concept of 'Pax Britannica'.

Thus while there were undoubtedly reactionary serving and retired senior officers with ample time to expound eccentric views in an extensive service press, they were not typical of the officer corps. Their junior and mid-seniority counterparts, many of whom would attain high rank in the 1870s and 1880s, faced a remarkable range of military and technological challenges that confound modern assessments that for 20 years after the Crimean war 'the torpor of the long Victorian afternoon descended upon the Navy'³⁷ and that prior to 1884 'naval life had indeed become one long holiday'.³⁸

The naval background to the years 1857-77 is a complex and contradictory one. There is no doubt that the period stands in marked contrast to the energy and activity of the last decade of the century and that the overall climate was dominated by a systematic reduction of naval expenditure that extended to almost every area of Service life. It is also true that while the size and shape of the navy was sporadically a matter of concern, the political debate on Service matters was both limited and lacking in the genuine fervour of the years after 1884. The combination of public

indifference and a cross-party consensus on the need for financial retrenchment, ensured little delineation in party political approaches to naval problems. Against this arid political and financial background the administrative structure of the Admiralty which was supposed to provide the central command and control of Navy remained, despite the reformer's zeal, chronically ill organised.

However, to dismiss these years simply as a barren period between the Crimean War and the period of the late Victorian naval competition, is to ignore a number of significant organisational and structural changes with long term implications for the Service. It may be argued that advances achieved in these years were an essential foundation for the much-feted late Victorian and Edwardian navy. It is hard to see, for example, how such a complex technically-orientated organisation could have operated without the social transformation of the lower deck and the subsequent manpower stability achieved by 1870. This in turn stimulated an improvement in the quality and competence of naval leadership that was essential if the new technology was to be mastered and if new strategic thinking concerning its use, was to be developed. In this regard the two decades from 1857 despite a number of unredeeming features, witnessed a growing sense of order in naval affairs, much of it achieved and in place by the end of the period.

Yet there is a sense in which the Service was subject to more profound change in these years - a sense in which the nature and subtlety of its administrative process shifted markedly. In this respect despite the comparative

lack of political dichotomy in the period, the Liberal administration 1868 to 1874 and in particular the administration of H C E Childers as First Lord stands as a watershed. While it is correctly argued that his reforms only succeeded in exchanging one form of chaos for another, the resultant shift in the balance of power on the Admiralty Board was of major significance. Prior to 1869 the Service consensus invariably held sway, and while this situation which was the product of consultation and cooperation guarded against intemperate planning, it did little to encourage the decisive action and personal responsibility required to manage the new technological challenges. The reorganisation which concentrated power in the political domain, while perhaps unsatisfactory in Childers' individual case, in fact provided what has been characterised as 'the initial impetus needed to dislodge an intensely conservative institution from its position of monolithic immobility'.³⁹ In this sense the Royal Navy, while it had to wait a further 15 years to see a transformation in its fortunes, had entered a new era in 1870.

This subtle shift has largely been ignored by naval historians who, in correctly identifying a lack of public interest in the Service, naval spending in decline and a lack of major operational interest, particularly fleet action, have tended to pass quickly from the Crimean War to the origins of naval rivalry in the mid 1880s. In this manner many of the foundations of the 'new' navy have been overlooked or ignored. Nowhere is this better observed than in the field of naval officer's education and training, for

the two decades from 1857 saw almost every aspect subject to a process of scrutiny, innovation and reform. This included, for the first time, a single uniform method of entry and education for young officers via the training ship system, the awarding of commissioned officer status to Naval Instructors, the foundation of a naval university, the appointment of the first Director of Education and the establishment of a series of major and subsidiary committees to examine and report on the state of basic and higher education with the Service. While some of these innovations were shortlived and others so unsuccessful that one commentator was forced to conclude that 'the mountain has been in labour so often - so many mice have been born,'⁴⁰ the years 1857-77 constitute the most vigorous years of educational innovation and reform in the long history of the Royal Navy. The fact that this activity coincided with a period when the Navy's fortunes were at such a low ebb, is the central paradox that this thesis seeks to explore.

General Historiography

To begin to explain the problem it is essential to examine the historiography of the Royal Navy in the second half of the nineteenth century, and in particular to analyse the very limited amount of comment that exists on the development of officer education during the period. The prospect is far from satisfactory for the researcher attempting to gain a comprehensive picture of the years 1857 to 1877, for there is no modern general history of the Royal Navy devoted to the second half of the nineteenth century, and the established histories are acknowledged as being both

unbalanced and deficient. There has been a marked tendency to ignore the social history of the Navy in favour of specialist studies principally concerned with the technological revolution that swept through the Service from about 1860. There are also several studies detailing the naval activity associated with the years of 'Pax Britannica' and with the Crimean War.

Perhaps the earliest example of the imbalance in historical coverage is to be found in Clowes' standard seven volume history of the Royal Navy published in 1903⁴¹ which, in dealing with the years 1857 to 1900, concentrates almost entirely upon operational matters. Despite the fact that the period contained no major war involving general fleet action, some 470 pages are devoted to the military history of the Service and only 84 to organisation, administration and personnel. The result is that the important changes that took place in conditions of service and particularly in naval education and training, are reduced to a mere catalogue of detail, devoid of qualitative analysis or comment.

This imbalance in favour of the operational history of the period is itself comparatively rare and has largely been eclipsed by a concentration on technological change which has stimulated numerous accounts in the field of warship design. This is scarcely surprising, for the advent of new ship construction, the development of torpedoes and advances in gunnery, propulsion and protection were all major characteristics of the era. Yet strangely the parallel revolution required in the education, training and

reorganisation of personnel required to grapple with the new technology has received almost no study. While there is a monograph detailing reform in ratings' conditions⁴² and some work has been completed on the social life of the lower deck during this period of transition,^{43, 44} corresponding developments in the officer structure and, in particular, improvements in officer education, have received almost no critical attention.

Against the backcloth of a general deficiency in the social history of the nineteenth-century Navy, there are grounds for seeing the years addressed in this study as being particularly poorly served. Beyond major technical studies by Brown⁴⁵ and Parkes⁴⁶ the period has attracted very little critical attention of any kind, and has been described as 'a lacuna in the social history of the Royal Navy'.⁴⁷ The relatively small size of the force and a quality of strategic thinking which has been characterised as not so much misguided as non-existent,⁴⁸ have apparently made the period unattractive to the researcher.

Existing general studies of the nineteenth-century Navy tend to finish with the advent of the Crimean War or commence towards the latter part of the period. The detailed and authoritative work by Bartlett⁴⁹ for example, which is essentially a study of naval policy but includes a good social perspective, concludes in 1853. More commonly, published work on the Victorian navy tends to commence at the end of the period as the rapid increase in public interest in naval affairs at the start of the 1880s produced a rapid expansion of source material. The definitive work

on the late Victorian navy by Marder⁵⁰ starts with the apparent threats to British naval supremacy from Russia and France in 1884, and the important study of the development of strategic thought by Shurman⁵¹ takes its effective starting point in the mid 1880s.

The view that 1884 constituted a sort of annus mirabilis has imposed an unfortunate characteristic on the historiography of the previous 30 years. In establishing the 1880s as a decade characterised by a dramatic increase in public interest in naval matters, there has been a tendency to portray the previous three decades as a datum against which this progress is measured and thus to overstate the degree of stasis in naval affairs. Thus the reform that did take place during the period - important advances in naval discipline which saw five new acts in the 1860s for example, or the educational innovations that this thesis seeks to explore, have either been ignored or more commonly sublimated to generalisations stressing the reactionary nature of the age. The image of 'ultra conservatism' applied to successive Admiralty Boards, which 'nostalgically wedded to the Nelson tradition and the heroic days of sailing navies were hopelessly lost amid the technical clamour for advance'⁵² is common and usually employed not to explain the nature of the age, but rather to emphasise the revolutionary changes in the era that followed. The adoption of stock images of conservatism in the mid-Victorian navy has had a number of attractions being both simple, convenient and, as Rodger has suggested, offering advantages to the biographical historian whose hero

may appear as 'the progressive David slaying the Goliath of reaction'.⁵³

Nowhere has the view that the mid-Victorian navy was dominated by 'the dead hand of ultra conservatism nurtured on the long tradition of naval success',⁵⁴ been more prevalent than in comment on the officer structure. It has been common to portray the senior officers of the period as old, reactionary and unable to come to terms with the scientific realities of the day - 'Trafalgar Admirals in the 1870s',⁵⁵ as one commentator has described them. It is undeniable that, in the absence of an effective system of retirement, some elderly officers continued to serve in positions of importance - in 1854 the Commander in Chief in the Baltic was 68 and his equivalent at Plymouth was 81! It was also true that there were many thousands of unemployed officers on half pay who advocated in public, outmoded and reactionary views. However, this thesis will argue that these men and their views were far from typical and that many senior officers in the period 1857 to 1877, particularly ones advocating improvements in education and training, were progressive, enlightened men very much in accord with the spirit of the age.

The one commentator who has made a particular study of personnel is Lewis, in his work The Navy in Transition⁵⁶ which discusses the social changes in the Service over a 50 year period from the conclusion of the Napoleonic wars. This is an important book for it is the only one that deliberately sets out to subjugate the mechanical and technological changes, and the developments in naval policy,

to a consideration of personnel. For this reason, although the study concludes in 1864 and although its comment on education and training post 1857 is limited, it is the foremost general history apertaining to this study. Lewis portrays the development of naval education in the years prior to the start of the period in terms of a steady general improvement in both quality and provision, with old systems being replaced by improved methods of training and instruction demanded by the new technology of the age. He sees for example, the 1837 abolition of new entry training at the Royal Naval College, Portsmouth, as initiating 'a scheme of unified entry'⁵⁷ with education at sea being 'placed in the hands of the new Naval Instructors'.⁵⁸ This view will be challenged in Chapter One of this thesis - the scheme of unified entry will be shown to be chaotic and the provision of Naval Instructors proved to be both uneven and inadequate. Indeed it will be argued that the establishment of the training ship HMS Britannia was in reaction to a lack of uniformity, direction and control resulting from the 1837 system of conducting officer education at sea.

Although Lewis acknowledges the advent of the Britannia system as an 'epoch making' move, he restricts himself primarily to factual detail of the conditions of implementation and devotes less than two pages to a consideration of the new mode of training. Yet despite this limited coverage, he concludes that while the ship undoubtedly represented an important improvement in the control and standard of officer entry, by 1858 it already represented an anachronism with 'many factors inherited

directly from the old war days'.⁵⁹ Lewis envisages a reactionary Admiralty under pressure on matters of conditions and discipline gradually being forced to make improvements 'through parental, press and parliamentary protests'.⁶⁰ This study will demonstrate, however, that far from a reluctant Admiralty gradually responding to external pressure, it was from within the Navy that the demand to improve conditions of education and training for naval cadets may primarily be observed.

Lewis is the only major published commentator to attempt a consideration of the general nature of officer entry and education and unfortunately his work finishes in 1864. Further consideration seldom stretches beyond the training ship, yet given this lack of serious analysis, it is surprising the extent to which the idea of an Admiralty nostalgically wedded to the sailing ship era, failing to reflect the emerging technology or its training, has held sway. Although evidence is seldom cited, this line of argument is frequently adopted when HMS Britannia is discussed. Bonnett for example sees the ship as a quite deliberate attempt to recreate the conditions of the Napoleonic wars, stating that 'in appearance and product the Britannia was inseparable from the past. She was painted to look like the Victory and she was geared to produce officers fit for the quarter deck of the Victory.'⁶¹

Even in biographies of senior naval officers of the early twentieth century, the vast majority of whom were the products of the training ship, there seems to be a marked reluctance to examine this formative period in their

careers, beyond the view that the Britannia failed to reflect the training needs of the day. Thus Temple Patterson, in his work on Jellicoe, notes that in the Britannia of 1872, 'her curriculum was behind the times',⁶² while Roskill, writing on Beatty who was a cadet in 1884, describes the system of training as 'extra ordinarily ill conceived',⁶³ although neither offers evidence to support these views. A similar superficiality may be noted in a study of the historical development of leadership in the Royal Navy by Horsfield who, despite the fact that almost every naval officer over a 50 year period was a product of HMS Britannia, confines his discussion of the system to noting 'the rigours and inadequacies of the training ship'.⁶⁴

HMS Britannia is briefly considered in the early chapters of works by Davies and Grove⁶⁵ and by Hughes.⁶⁶ Their principal concern however, is the history of the Royal Naval College established at Dartmouth in 1905, and they depend for the early history of the ship on the only book length study published in 1904 by Statham.⁶⁷ This is a detailed study clearly based on official records, although it is completely unreferenced and heavily infused with anecdote and reminiscence. Statham was a Cadet in the ship in 1862 and is thus an important, if rather uncritical source. However, his narrative gives the impression that he was an eye witness to a much larger period than could possibly have been the case. This makes some of the recollections suspect, particularly as Statham appears to have been the sole source for detail repeated by others.

These include Pack⁶⁸ who cites Statham as an eye witness to the move of the Britannia from Portsmouth to Portland in February 1862 and again as a commentator on events on board in August 1866, by which time Statham had left, the Captain had changed and the ship had moved to Dartmouth. Nevertheless despite its age, Statham's work remains the most carefully researched and detailed account of the training ship era.

Initial education in the Royal Navy during the years 1857-77 has received very little study beyond the Statham work, a brief consideration of the early years by Lewis and various fragments in biographies of naval leaders. College histories from 1905 mention the subject briefly and there is a similar tangential approach evident in monographs on the development of particular Service ranks. These include Walker's book on the history of the Midshipman⁶⁹ and works by Penn on the evolution of the Engineer⁷⁰ and the Midshipman⁷¹ respectively. These are essentially non-analytical but are characterised by a tone of mild yet unsubstantiated criticism, questioning the relevance of the Britannia system to the realities of the day. Yet if this coverage of initial education is unsatisfactory, the subject of higher education for officers, ie. that which took place after the Britannia both in operational warships and at the Royal Naval Colleges of Portsmouth and Greenwich, is arguably more so.

In the area of higher education there is no published book length study. Coverage is restricted to journal articles and a short section of a book dealing with the

local history of Greenwich by Dawson.⁷² The relevance of this work is limited and amounts to only nine pages dealing with the foundation and early years of the Royal Naval College. Although quite a vivid picture of college life in the late-Victorian era is achieved, via use of contemporary quotations, it is completely unreferenced and contains several errors.

The remaining coverage of higher education is contained in two articles in the Journal of the Institute for Nautical Research (Mariners Mirror). The first is a 12 page article by Callender⁷³ published in 1939 tracing the development of the subject from 1839 to 1873. While this constitutes a useful survey, it is essentially anodyne in nature ignoring or unaware of the political dimension in the considerable debate about the location of the Navy's new university. The 1968 article by Lloyd⁷⁴ covers much the same ground, although it contains both factual and interpretive errors which include misunderstanding the position of the Director of Education for the Admiralty and misinterpreting, as does Dawson, both the role and findings of the Tarleton Committee of 1872.

One of the most interesting accounts of naval education in the 1870s comes from an unusual source. In 1878 Professor James Soley of the United States Naval Academy was directed by his government to write a study of educational practice in the navies of Great Britain, France, Germany and Italy. Soley carried out a study tour of Europe for this purpose and his Report on Foreign Systems of Naval Education published in 1880 was a full-length study of practice in the

leading European navies. The British section included an account of the work of HMS Britannia, education conducted in operational warships by Naval Instructors, the Royal Naval College Greenwich and the specialist training schools for torpedo and gunnery practice. It was a largely factual account of each phase of the educational programme and was related in great detail. Soley, while suitably deferential to the upholders of 'Pax Britannica', was little impressed with the British system and his overall conclusion was that 'the high scientific and professional attainments of many English naval officers are not in consequence, but in spite of, their early education'.⁷⁵

Chronologically this book lies just outside the period of this thesis and is essentially a 'snap shot' of educational practice in the year 1879 - two years beyond the limit of this work. Nevertheless much of the procedure observed in the Soley work remained identical to earlier years and his report, which a contemporary critic noted contained 'more accurate and detailed information as well as more intelligence criticism than has hitherto been rendered in any way available',⁷⁶ has considerable value. This was enhanced by the independent nature of the commentator who was acknowledged to be a 'singularly capable and well informed foreigner free from the trammel of old custom and national prejudice'.⁷⁷

Work by F B Sullivan

The only work to deal with the complete scope of naval education in the years covered by this study is an unpublished 1974 doctoral thesis undertaken at the

University of Reading School of Education by F B Sullivan. The 'Origins and Development of Education in the Royal Navy'⁷⁸ examines educational provision for both officers and ratings from 1702 to 1902 and the author claims that 'persistent research has enabled a detailed account to be written of the totality of naval education during the period'.⁷⁹ The work is divided into four main sections covering the 200 year period and further sub divided into 14 chapters. Educational provision pertaining to the years of this study is examined in Chapters 12 and 13 which amount to a total of 85 pages. However, as the coverage frequently includes reference to ratings' education and as the latter chapter extends to 1903, the specialist analysis of officer education between 1857 and 1877 amounts to less than 50 pages.

There can be little doubt that in the early chapters of this work, which consider educational provision in the eighteenth-century Royal Navy, a valuable and original contribution to knowledge has been achieved. Two areas of activity are considered, namely the shoreside education provided by the Naval Academy since 1733 and the instruction in operational warships undertaken by Naval Schoolmasters throughout the eighteenth century. In the latter area it had previously been assumed that these men were seldom employed and little was known of their appointment and qualification procedure.⁸⁰ By examination of both Admiralty and Trinity House records, Sullivan has shown that Naval Schoolmasters were present in much greater

numbers than previously thought and that over one thousand warrants were issued between 1712 and 1815. He has also shown that Naval Schoolmasters were operating on board ships much earlier than previously believed. Similarly the thesis contains a valuable consideration of the foundation of the Naval Academy at Portsmouth. Details of this institution had been obscure and Sullivan's consideration of the original curriculum, staffing and organisation, together with discussion of the progress of the institution throughout the eighteenth century constitutes the most comprehensive account of the establishment prior to its reorganisation as the Royal Naval College in 1806.

However, the advent of the nineteenth century, as the scope of naval education was extended, and as the source materials became more numerous and detailed, clearly reveals the shortcomings of the study and particularly the over ambitious aim of attempting to analyse in detail both officers' and ratings' education, at sea and on shore, over a 200 year period. These defects fall into three principal areas.

The first is that faced with such an extensive remit over an extended period, the subject area becomes too great and the author is forced into unsatisfactory levels of analysis which can only account for developments in superficial terms. Thus, for example, the fortunes of the Naval Instructor branch from 1837 are related in terms of a gradual improvement 'as the number of Naval Instructors steadily increased and the Admiralty aim of attracting better candidates was gradually achieved'.⁸¹ Conversely the

evolution of the training ship system from 1857 until the end of the century is interpreted in terms of a gradual, progressive disenchantment causing 'increasing dissatisfaction with it as time went on'⁸². It will be argued in this work that in neither of these cases and in numerous others, do Sullivan's generalised conclusions adequately reflect the subtlety and detail of historical events that are both complex and capable of varying interpretation.

This shortcoming which applies particularly to the nineteenth-century section of Sullivan's work is most acutely observed in the coverage of the important reforming committees set up to look at naval education in the 1870s.

Here the author appears to take no cognisance of the political background against which the Royal Navy of the period operated. He does not recognise, for example, any political dimension in Admiralty decision making or acknowledge any of the exigencies of party politics or self interest within an organisation whose workings at this time have been said to resemble 'less the smooth running of a well oiled machine than the byzantine intrigues surrounding an absolute monarch'.⁸³ The Admiralty is thus portrayed as a sort of autonomous body producing its own initiatives, appointing committees and initiating policy changes for reasons which are never analysed, and assumed to be self generating.

The result is that explanation of Admiralty policy throughout the thesis never moves beyond the naive and simplistic. For example, although Sullivan is aware that in 1870 the first Committee on the Higher Education of Naval Officers was appointed, he is unable to explain the cause of its inception beyond 'it was not until 1870 that the Admiralty stirred itself and appointed a Committee'.⁸⁴ Similarly he does not seek to explain why two and a half years should elapse between the submission of the report and the implementation of its recommendations beyond 'the Admiralty did not allow itself to be hurried'.⁸⁵ Likewise he is unwilling to identify the reasons behind the decision to review the efficiency of the Royal Naval College in 1877,⁸⁶ beyond the fact that 'the College had been established for four years'.⁸⁷ There is a persistent lack of curiosity about what motivated the Admiralty to behave as they did. By Chapter 13 this results in Sullivan envisaging a period of lethargy and decay in naval affairs arguing that for 20 years after 1857 - 'the torpor of the long Victorian afternoon descended upon the Navy',⁸⁸ yet arguing in the previous chapter that this same period was characterised by 'a period of intensive self analysis by the Admiralty in the education sphere'.⁸⁹ His failure to account for or even acknowledge this paradox is one of the major shortcomings of the work.

The second problematic area is also derived from the breadth of the remit and results in the author reducing the sort of educational activity he is prepared

to consider in the thesis. He is thus forced to adopt parameters which prohibit a comprehensive understanding of the totality of naval education in the period. For example, any consideration of the gunnery school at HMS Excellent is excluded, on the grounds that it was 'technical training which was given to specialist personnel such as gunners and engineers'.⁹⁰ While clearly some distinction has to be drawn between education and training, this thesis will suggest that it cannot be a rigid one. In this particular instance HMS Excellent and the Royal Naval College Portsmouth were inextricably linked, for after 1839 the Captain of the Gunnery School was also the Superintendent of the College and the justification for re-opening the latter had been based on the requirement for an academic element in gunnery training. Thus higher education in the Royal Navy far from being 'distinct and not to be confused with the technical training',⁹¹ first found definition within subjects such as gunnery and naval architecture.

The exclusive parameters of the Sullivan work also dictate that only 'education provided within the Royal Navy for serving personnel',⁹² are considered. While this appears logical even a brief survey of the two decades from 1857 reveal the extent to which external institutions reflected and impinged upon educational activity within the Service. This ranged from, at a basic level, the heavy reliance by officer candidates on private educational establishments undertaking

'cramming' for the entry examination and the academic course in the Britannia, to the influence of bodies such as the Royal United Service Institution founded in 1832 which has been seen as a substitute for a war college and a sort of university of the services.⁹³ It will be argued that such peripheral educational activity was an important facet of officer education in the Royal Navy and some consideration of it is essential if an accurate overall picture is to be gained.

The third area of concern is based on the quality and use of source material. There is no doubt that Sullivan has done valuable work in his scrutiny of more than 20 volumes of Admiralty Records which detail all the commissions and warrants issued in relation to naval appointments between 1712 and 1824.⁹⁴ Similarly his examination of eighteenth-century Trinity House By-Minutes has enabled a body of source material to be assembled such that 'a considerable void in the early history of the naval school master is filled'.⁹⁵ However, in his coverage of nineteenth-century education, the situation is less satisfactory.

In the latter stages of the Sullivan work there is a strong dependence on secondary sources. When this material is scrutinised it becomes apparent that the bulk of it constitutes a series of sub references from a single source. Chapter 12 for example, which deals with the training ship era from 1857 to the end of the century, cites 129 references of which more than 100 will be shown to be derived from or relate to, one

particular study, Statham's The Story of the
Britannia.⁹⁶ The reliance upon this one book for such
an important period of educational development is
clearly unacceptable if a total picture of the quality
and extent of naval education is to be achieved.
Additionally, while Statham's work is the most detailed
account of the training ship era, its limitations make
it sporadically unreliable as a standard work.

There are further shortcomings in the use of source
material which lead to errors and omissions in
Sullivan's treatment of the second half of the
nineteenth-century. These arise from instances where
the primary source has clearly not been consulted and
the information and comment from the secondary source
have merely been repeated. There are a number of
examples of this in the latter part of the thesis
including comment on the Tarleton Committee 1872⁹⁷ and
the Wellesley Committee of 1876,⁹⁸ both significant
forces in the evolution of naval education, neither of
which has been consulted in original form. The result
is a failure to understand or account for highly
significant changes in the naval education process
during these years.

It will be argued in this thesis that the Sullivan
work, while offering an important contribution to the
understanding of educational provision up to 1806, is
deficient in its nineteenth-century coverage. His
attempt to account for the complete range of naval
activity over a 200 year period is too ambitious for a

thorough understanding to be gained, particularly in the second half of the nineteenth century when educational innovation and reform was at its greatest. The nature and content of the Sullivan remit has resulted in a less-than-rigorous use of source material, the pursuit of unrealistic parameters that preclude a full understanding of educational activity, and the adoption of levels of analysis which seldom investigate historical detail or account for motivation on anything beyond a banal level.

The historiography of naval education in the 20 years after 1857 presents an uninspiring picture. There is a general deficiency in naval social history in the second half of the nineteenth century and in particular a neglect of the two decades following the Crimean War. Against this unsatisfactory background it is difficult to identify any cogent account of the development of naval education and training. Despite the fact that these years saw the foundation of the modern naval education system they have been the object of only fragmentary and unsatisfactory analysis. This has two principal characteristics:

First. It is evident that in the existing work only a limited amount of research has been conducted. While the number of journal articles and books that comment on naval education is small, the sources from which these details are derived are particularly restricted and sometimes unreliable. This has resulted in errors of fact and interpretation which have been

repeated to the extent that they have assumed a general validity.

Second. The historiography is notable for a complete lack of enquiry into the origins of educational activity from 1857 beyond a vague association between educational advance and the pace of technological change. At no stage do any of the commentators ask why such changes should have taken place and nowhere is the political and administrative dimension behind innovation and reform acknowledged or investigated.

Introduction - Notes

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|-----|------------------|---|--|
| 1. | A J Marder | The Origin of Popular Interest
in the Royal Navy | <u>Journal of Royal
United Services
Institute</u>
Feb 1937 p769 |
| 2. | J L Lant | The Spithead Review of 1887 | <u>Mariners Mirror</u>
Vol 62 No 1 1976 |
| 3. | O Parkes | <u>British Battleships
1860-1950 (1966)</u> | p230 |
| 4. | Anon | <u>Admiralty Administration (1861)</u> | p(v) |
| 5. | C J Bartlett | 'The Mid-Victorian Reappraisal of
Naval Policy' in K Bourne and
D C Watt <u>Studies in International
History (1967)</u> | p189 |
| 6. | <u>Hansard</u> | 3rd Series Vol CL11 (1859) | Col 911 |
| 7. | <u>The Times</u> | 17 June 1859 | |
| 8. | J Morley | <u>The Life of W E Gladstone
Vol I (1905)</u> | p774 |
| 9. | Bartlett | op cit | p199 |
| 10 | N A M Rodger | The Dark Ages of the
Admiralty Part II | <u>Mariners Mirror</u>
Vol 62 No 1 1976 |
| 11. | E L Rasor | <u>Reform in the Royal Navy (1976)</u> | p18 |
| 12. | N A M Rodger | <u>The Admiralty (1979)</u> | p104 |
| 13. | J H Briggs | <u>Naval Administrations
1827-1892 (1897)</u> | p154 |
| 14. | Rodger | op cit (1979) | p104 |
| 15. | N A M Rodger | The Dark Ages of Admiralty
Part I | <u>Mariners Mirror</u>
Vol 61 No 4 1975 |
| 16. | R V Hamilton | <u>Naval Administration(1896)</u> | pp24/25 |
| 17. | W L Clowes | <u>The Royal Navy. A History
Vol 7(1903)</u> | p11 |
| 18. | W Tute | <u>The True Glory (1983)</u> | p153 |
| 19. | R Taylor | Manning the Royal Navy
The Reform of the Recruiting
System | <u>Mariners Mirror</u>
Vol 45 1959 |

20. M Lewis The Navy in Transition pl08
 (1965)
21. Royal Commission to inquire into best Means of manning
 Navy (1859)
22. R Harris A Historical Sketch of the
 Several Means Adopted for the
 Education of Naval Officers (1863) p35
23. M Lewis op cit pl27
24. Admiralty Circular 288 23 February 1857 ADM 7/890
25. A R Wonham Spun Yarns of a Naval Officer pxii
 (1917)
26. Select Committee on Promotion and Retirement pvi
 in the Royal Navy (1863)
27. E P Statham The Story of Britannia (1904) p80
28. Admiralty Circular 3c 6 January 1870 ADM 1/6110
29. M Lewis op cit pl17
30. W Tute op cit pl50
31. O Parkes op cit p5
32. ibid p252
33. W L Clowes op cit pl6
34. O Parkes op cit p363
35. W L Clowes op cit pvii
36. N A M Rodger 'British Naval Thought and Policy
 1820-1890' in New Aspects of Naval
 History ed Symons (1981) pl47
37. C Lloyd The Nation and the Navy (1954) p237
38. A J Marder From Dreadnought to Scapa Flow
 Vol 1 (1960) pl0
39. N A M Rodger op cit (1975) p344
40. J S Corbett 'Naval Education' Monthly Review
 Sept 1902
 pp44/45
41. Clowes op cit
42. Rasor op cit
43. P Padfield Rule Britannia (1981)

44. J Winton Hurrah for the Life of a Sailor!
(1977)
45. D K Brown Before the Ironclad (1990)
46. Parkes op cit
47. Rasor op cit p20
48. Rodger op cit (1975) p331
49. C J Bartlett Great Britain and Sea Power (1963)
50. Marder op cit (1960)
51. D M Shurman The Education of a Navy (1965)
52. P Kemp 'From Tryon to Fisher: The Regeneration
of the Navy 'in Naval Warfare in
the Twentieth Century
1900-1945 ed Jordan (1977) p16
53. Rodger op cit (1981) pl41
54. Kemp op cit pl6
55. S Bonnett The Price of Admiralty
(1968) pl19
56. Lewis op cit
57. ibid p109
58. ibid
59. ibid pl12
60. ibid
61. Bonnett op cit pl25
62. A Temple Jellicoe (1969) pl6
Patterson
63. S W Roskill Admiral of the Fleet
Earl Beatty (1980) p21
64. J Horsfield The Art of Leadership in War(1980) p101
65. E L Davies The Royal Naval College Dartmouth (1980)
& E J Grove
66. E A Hughes The Royal Naval College Dartmouth (1949)
67. Statham op cit
68. S W C Pack Britannia at Dartmouth (1966)
69. C F Walker Young Gentlemen. The Story of the
Midshipmen (1938)

70. G Penn Up Funnel Down Screw! (1955)
71. G Penn Snotty. The Story of the Midshipman (1957)
72. C M Dawson The Story of Greenwich (1977)
73. G Callender 'An Educational Centenary' Mariners Mirror
Vol 25 1939
74. C C Lloyd 'The Royal Naval Colleges at
Portsmouth and Greenwich' Mariners Mirror
Vol 2 1966
75. J R Soley Report on Foreign Systems of Naval
Education (Washington DC 1880) p90
76. J K Laughton On the General European System
of Naval Education (1881) pl
77. ibid
78. F B Sullivan 'The Evolution and
Development of Education
in the Royal Navy 1702-1902' Reading PhD
1974
79. ibid p x.
80. M Lewis The Navy of Britain (1948) pl93
81. Sullivan op cit pl27
82. Sullivan ibid Pt 4 Intro
83. Rodger op cit (1975) p331
84. F B Sullivan op cit p330
85. ibid p343
86. Committee appointed to enquire into the establishment of
the Royal Naval College Greenwich (The Gordon Report)
Cl733 (1877)
87. F B Sullivan op cit p351
88. Lloyd C C quoted in F B Sullivan
op cit p330
89. F B Sullivan op cit p297
90. ibid Preface
91. ibid
92. ibid
93. D M Shurman op cit p8
94. F B Sullivan op cit (vii)

95. ibid (viii)
96. E P Statham op cit
97. Committee to consider and arrange the details of the
Establishment at Greenwich Hospital for the Education
of Officers in the Royal Navy (The Tarleton Report)
(1872) ADM 1/6235
98. Committee to advise as to the most desirable site
for a College for Naval Cadets (The Wellesley Report)
C 1673 (1876)

Chapter One

The Origins of Officer Education and the
Foundation and Early Development of the
Training Ship, HMS Britannia to 1862

Abstract

This chapter outlines the nature and development of the bipartite system of naval education from its origins to the demise of the Royal Naval College in 1837. The reasons for closure are discussed, and educational activity in the Service in the years immediately preceding this study is subjected to detailed analysis, with existing assessments of the quality and extent of educational provision challenged.

The origins of the training ship concept are identified as being both earlier and more pastoral in nature than previously believed, and the adoption of the system for officers is shown to be the culmination of a series of bureaucratic measures designed both to control entry and education more closely, and to counteract high discharge rates amongst officers under training.

The early years of the officer training ship are considered and a description of her routine is outlined. Contemporary assessments of her efficiency are examined and new evidence is offered to suggest that the Britannia was the subject of criticism and debate from her earliest days.

Throughout this chapter it is argued that previous research, both published and unpublished, is unsatisfactory and that the replication of omission and error characterise much existing comment.

Officer Education up to 1857

In 1857 there were already established traditions in initial officer education in the Royal Navy dating from the late seventeenth-century when education, or more accurately the process of examination, was first established as a bureaucratic device to control the number of officers in a particular rank. Pepys had introduced a series of preconditions for candidates for the post of Lieutenant in 1678 which produced immediate results:

Thank God we have not half the throng of those of the bastard breed pressing for employment which we heretofore used to be troubled with, they being conscious of their inability to pass this examination.¹

From this time candidates for promotion were to serve three years at sea, spend at least a year as a Midshipman, produce a certificate of sobriety, diligence and obedience and pass an examination in navigation and seamanship at the Navy Office. These reforms were primarily administrative devices for controlling progress through the naval service previously achieved by birth, position and influence. Nevertheless, the requirement for examination implied a need for instruction, and it was in the last quarter of the seventeenth-century that the first unofficial efforts in naval education are to be found.

Some official recognition of this appeared in an Admiralty Order in Council of 1702 which authorised a payment of £20, subsequently known as Queen Anne's Bounty, which was added to a Midshipman's pay and given to anyone willing to undertake the duties of a schoolmaster. Poor pay and poorer conditions ensured that the calibre of potential schoolmasters remained low. In fact, the concept of education as either

valuable or indeed necessary to entry and successful advancement through the Service was completely alien to the eighteenth-century navy. From the earliest times officers had entered the Service by a process of arrangement whereby parents would approach the Captain of a ship and ask for his patronage for their son - which, if he could see advantages in it for himself he would grant and the boy would be taken to sea. These young men, known as Captain's Servants and after 1794 'Volunteers First Class', could be rated as the Captain chose and proceeded to become Midshipmen with the eventual aim of sitting the examination for Lieutenant. Despite this latter hurdle, the amount of interest which had secured their entry and which they could continue to command, remained the key factor in their future promotion stakes.

The problem for the Admiralty was that for several hundred years it had very little control or endorsement over new entrants into the Service. The abuse for example of entering non-existent people into the Ship's Book was common, and children's names often appeared on ships' muster lists. Even when the people did exist there were difficulties in identification, for it was a Captain's prerogative to rate his young officers as he thought convenient. Thus a future Admiral might appear as an Able Seaman - as Horatio Nelson did in HMS Seahorse in 1774.² It was partly to combat this sort of chaos that examination, and by implication the process of education, was introduced into the seagoing ships of the Royal Navy. The use of education as an instrument of bureaucratic control is a persistent theme in the history of the Service.

This, then, was the state of shipborne education throughout the eighteenth century. It was characterised by relatively small numbers of ships' schoolmasters occupying a low status in the ship's hierarchy, poorly paid and living in primitive conditions. They were conducting basic education in mathematics, navigation and seamanship, sometimes with crew members, but usually with young officers. The relevance of this education was strictly limited and had little or no effect on the career progress of the officers involved, while the existence of 'interest' remained the primary factor in advancement. The Admiralty saw some advantages in educational provision but more particularly in examination - for this was the bureaucratic device that allowed them to gain some limited control of numbers and ranks. It also went some way to checking the excess of the patronage system.

In parallel with this chaotic system of shipborne education the Admiralty operated a more formal entry and education via the Royal Naval Academy Portsmouth which had been founded in 1729 'for the better education of forty young gentlemen to be trained up for Your Majesty's service at sea'.³ The Academy attempted to impose certain minimum standards upon entry and the pupils 'young gentlemen, sons of noblemen and gentlemen' were to be aged between eleven and 15 years of age and were required to produce a certificate stating their competence in Latin. The syllabus was a comprehensive one and included practical elements to be conducted in the Royal Dockyard as well as the study of 'Writing, Arithmetic and Drawing, as well as Dancing and Fencing'.⁴

The Academy opened in the summer of 1733 but despite the wide-ranging curriculum and the impeccable credentials of the pupils, the progress of the institution was not a happy one. It had a capacity for 40 pupils but seldom seems to have been full and perhaps for this reason the background of entry was widened in 1773 to include 'the sons of commissioned Officers of His Majesty's Fleet who would be entertained in the Academy as part of the forty scholars to be educated there.'⁵ This appears to have made little difference to the institution's popularity and there was a welter of contemporary criticism of general standards culminating in the First Lord of the Admiralty's view, expressed in 1801, that 'the Royal Academy at Portsmouth (which) is a sink of vice and abomination should be abolished'.⁶

While there can be little doubt that the Academy failed to provide satisfactory levels of education it was almost certainly more effective than the alternative shipborne education provided by a low calibre, poorly paid schoolmaster in the harsh conditions of an operational warship. Lewis suggests that the Academy 'though it may have been far from good by modern standards can hardly have been worse than that accorded to the ordinary run of officers which was often nil'.⁷ Yet this chaotic system of shipborne education with all its drawbacks commanded vigorous support throughout the eighteenth century and into the mechanised age, to the extent that one commentator has suggested that the training ship innovations of the 1850s were quite deliberately anachronistic in nature.⁸

Much of the support for shipborne as opposed to college entry and education, was simply the product of self-interest on the part of senior officers who could duly dispense patronage. Yet there were positive skeins of thought which actually supported the idea of thrusting eleven and twelve year old boys of impeccable family background into the harsh conditions of an operational warship. Byam Martin, in dismissing the standards at the Academy, praised the virtues of a 'well regulated man o' war'⁹ as the best place for education to be conducted. There was much support for this view. Barrow, in an essay on education in 1804, wrote 'Were it not for the dormitory at Westminster and the quarterdeck of a man o' war we should soon have a nation of macaronies'.¹⁰ The Duke of Clarence (later William IV) declared in 1827 that 'There is no place superior to the quarterdeck of a British man o' war for the education of a gentleman'.¹¹

Despite this vigorous support for education at sea and despite the poor reputation that the Academy had established, the Admiralty did not abandon the concept of shore-based education. In 1806 the old institution was enlarged, overhauled and renamed the Royal Naval College. A distinguished mathematician, James Inman, was appointed Professor and he quickly established a reputation for excellence with a comprehensive syllabus that stressed the importance of science to the seaman's art. The number of places for scholars was increased from 40 to 70, and students were divided into half yearly classes depending upon ability. Alterations and enlargements to the College took two years to complete and the institution opened its doors to the first pupils in February 1808.

The relative support for shoreside or shipborne education of naval cadets is a recurring theme in naval education from the earliest years and throughout the period of this study. It has been suggested that the Admiralty decision to pursue shoreside education was

part of a controversy that was to continue for almost a century and a quarter, namely that of whether such education and training could be carried out more effectively in a shore-based institution or at sea on board a man o' war',¹²

but in fact there seems to be little evidence of a genuine educational dilemma here. For despite the progress and improvement in the Royal Naval College it still only catered for a fraction of the officer entry. It has been shown that only 2.7 per cent of the officer entry during the period 1806-1814 who survived until 1845, joined the Royal Navy through the College and the figure only rose to around 11 per cent in the decade after 1815.¹³

A more plausible explanation for persevering with the College system was to link it to the theme of education as the bureaucratic and administrative device already discussed. In the chaotic manpower situation heightened by the effect of the Napoleonic wars it was the only way that the Admiralty could gain control over its officer entry. The College had become a device to combat the power of 'nomination' and against this the Admiralty had to fight for, as Lewis has suggested, 'it would never get a properly organised, properly balanced officer structure until it had won this particular battle'.¹⁴

One result of this internal struggle was that senior officers who felt their interest threatened by the College agitated for and obtained a series of improvements for ship's schoolmasters which were implemented between 1806 and 1837. Sullivan has suggested that these incentives in pay and conditions were successful and that 'a large number of ships enjoyed the services of a schoolmaster during the eighteenth and early nineteenth centuries'.¹⁵ Within the context of the bipartite naval education system this is an important claim and one that must be considered if an accurate assessment of educational provision in the first half of the nineteenth century is to be gained.

An examination of Admiralty records is of some limited help. It is possible to trace numbers of schoolmasters serving in the eighteenth and early nineteenth centuries through miscellaneous lists and registers at the Public Record Office. Admiralty Papers 6/427 and 6/185 contain folios with individual warrants appointing schoolmasters to ships throughout the eighteenth century and up to 1824. Sullivan has shown that in the 18 years prior to this date 206 warrants were issued and concluded that 'naval schoolmasters were' far more numerous during the eighteenth and nineteenth centuries than previously had been believed'.¹⁶ However, this figure is misleading for as a warrant was issued each time a schoolmaster was appointed to a warship, it was possible for one individual to receive a number of warrants. This was in fact the case, for in the years 1806-1824 12 schoolmasters accounted for 75 of the warrants issued. Further analysis shows that of the 98

schoolmasters appointed during the period, 64 were appointed only once and 12 received but two warrants. When these men are discounted, we may see that over an 18 year period only 22 schoolmasters served regularly in a fleet, which could comprise as many as 100 ships of 1st to 6th rate in any one year.

From June 1837 with the appointment of Schoolmasters to be 'Warrant Officers of Wardroom Rank' their numbers were recorded in the Navy List. This leaves a period from 1824 (when ADM 6/185 completes) to 1837 (when the Navy List entry begins) when the number of schoolmasters is difficult to estimate. Sullivan, although his period of interest extends to the end of the nineteenth century, does not address himself to numbers between 1824 and 1837 and no register of schoolmasters for the period exists. Numbers were certainly declining around 1820, for an Order in Council of 28th February 1822 stated that 'only one person has passed at Trinity House'¹⁸ in the three years previously. In 1824 only two warrants were issued.¹⁹

In the absence of Admiralty records of the numbers of schoolmasters serving in the 13 years between 1824 and 1837, a number of alternative sources including the Nautical Magazine, first published in 1832, were consulted. The evidence here is quite clear. In 1832 only three schoolmasters were appointed to ships of the Fleet, in 1833 only one, and in the years up to 1837 the number never exceeded eight.²⁰ During this time a number of large ships, which by scheme of complement would have carried between six and eight officers under training, were without

schoolmasters. In 1833 these included the 110 gun flagship San Josef, the Caledonian (120) and the Edinburgh (74) while other substantial ships included the Endymion (50), Blanche (46) and Forte (44). By tracing all schoolmaster appointments made in the years to 1837 it is apparent that not only were these ships without schoolmasters initially, but that they remained without them up to and beyond 1837.

Given the completely inadequate system of education at sea and the advances that the Royal Naval College had made via a talented staff and a slowly increasing proportion of the officer entry, the decision to disestablish the College in 1837 was a significant one. It was closed without ceremony in March of that year and for the next two decades all new entrants proceeded directly to operational warships, where they were subject to a system of education that was inadequate in both scope and provision. The essential point to grasp about the demise of the College was not, as Sullivan has suggested,²¹ that the seaborne schoolmaster scheme offered a viable alternative but rather that the closure formed part of a wider pattern of anti-educational measures detectable in the Royal Navy of the 1830s. These included an attempt to disband the newly-founded gunnery school in 1832 and a similar but successful campaign that resulted in the demise of the School of Architecture in Portsmouth Dockyard in the same year. Both these institutions which formed the embryonic stage of future higher education in the Royal Navy were closely connected with the College.

The degree of opposition within the Navy to the Royal Naval College from its foundation in 1806 had always been

considerable. Much of this was in accordance with the traditional struggle between the Admiralty and its senior officers, concerning the power of nomination and the increasing proportion of entry that the College was taking. In the two decades after the Napoleonic wars this traditional friction was increased as the officer corps became subject to a process of class consolidation designed to block the advances made by officers of more humble stock during the war years. So advanced had this process become that for the only time in the history of the Service consideration was given to the purchase of commissions as a means of reducing and refining the officer list.²²

This sort of measure was in direct conflict with the bureaucratic control of entry that the College represented and the result was a strong vein of prejudice towards the College and its products, by senior officers. This reached a point in the 1830s where some Captains would not accept college-trained officers into their ships.²³ The constant refining of the officer structure during this period became distilled into a preoccupation with status and in particular a fixation on the part of existing senior serving officers about what constituted a gentleman. To this end many officers believed that a warship was the best place for the robust physical and social conditions long favoured as part of the gentleman's experience. Not only was the quality of entry more closely controlled but the essential moulding of character was in the hands not of a civilian professor, but of the Captain and his officers. Thus education at sea was

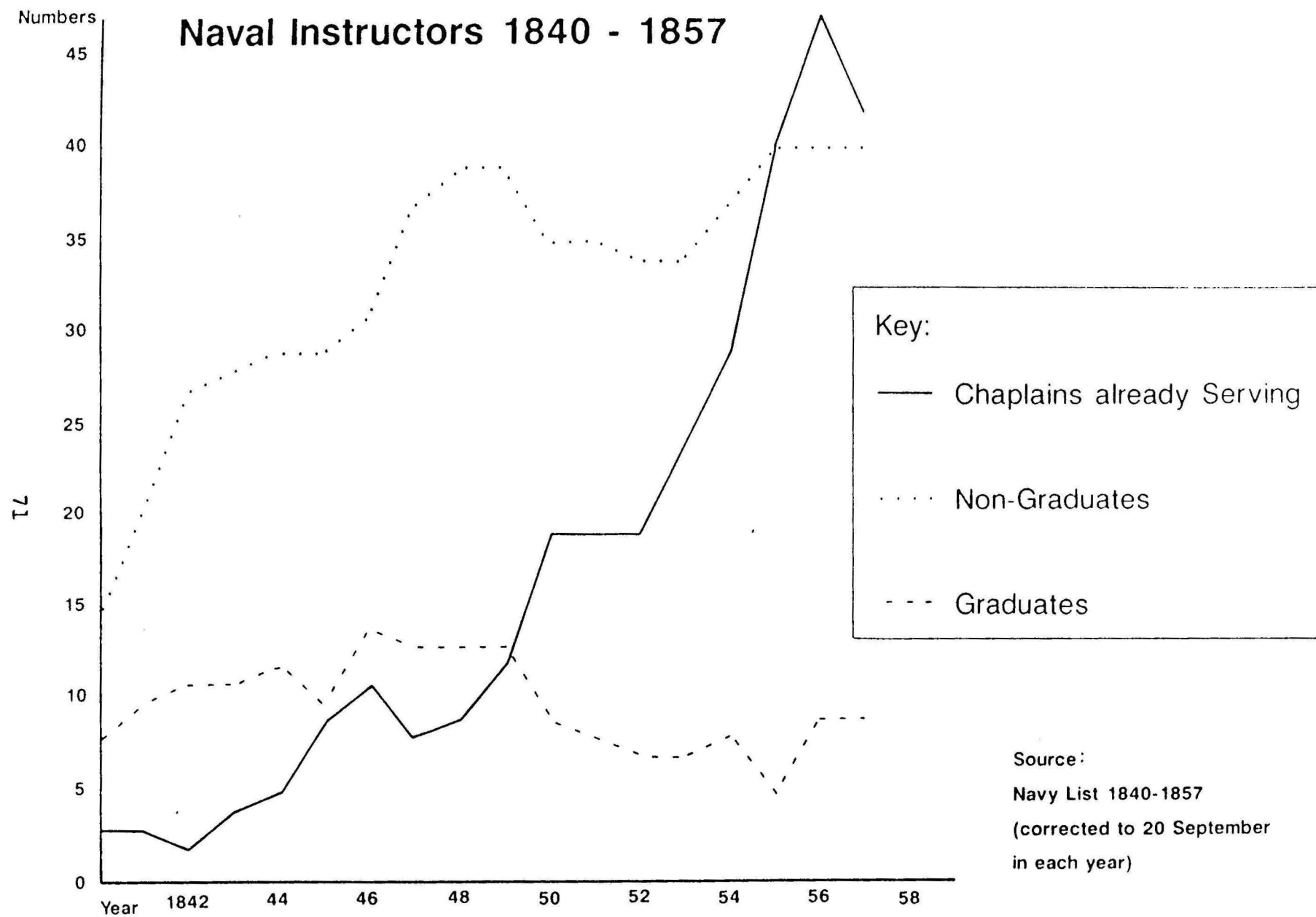
it was more effective but because it allowed senior officers closely to control the quality of young gentlemen joining the Fleet, and it provided the rigorous physical and social experience that was seen as essential in the officer's background and experience.

An additional dimension in the decision to dispense with the College was the existence in the Royal Navy of this period of a widespread antipathy towards scientific method and study. Much of this problem was related to the quality of senior officers, ie those making decisions about training, and their ability to come to terms with the scientific realities of the day. Promotion to Flag Rank was still conducted by strict rules of seniority with many men responsible for advising the government still serving at the age of 80 or more. There is evidence that many of these men were unable to grasp the scientific and technical changes taking place around them.²⁴ This may be vividly observed in the attacks on the gunnery school and the School of Architecture, but there is also evidence²⁵ that the Royal Naval College which practised the study of science and was included in the naval estimates under funds allocated to the scientific branch, was the target for senior officers determined to redress the balance of naval training towards a more practical format.

When these factors are considered in association with the views of naval administrations of the 1830s committed to drastic cuts in virtually all areas of naval activity, the reasons for the demise of the College became clear. It was closed, not as Sullivan has suggested²⁶ because the alternative schoolmaster system was a success and compared

favourably with College training, for this is demonstrably untrue. Shipborne education was pursued not because it was successful or educationally superior but because it was less expensive, less scientific and less democratic. Thus by the closure of the College and the renewal of faith in the schoolmaster system, the Navy denied itself the opportunity to instruct its young officers in the increasing technology of the age. By 1840 with over 70 steam ships in the Navy List, all entry into the Service was by training in sailing ships, where a practical course in sail-based seamanship was followed. While it is true that the College syllabus may not have accurately reflected the scientific advances of the day, training in seagoing ships was even more remote. Such a move may have strengthened the class structure and ensured that the necessary gentlemanly qualities were instilled, but its segregation and contempt for technical and scientific advances were to have a profound effect on the future efficiency of the Service.

For the next 20 years naval education was conducted solely at sea. In the wake of the College closure the Admiralty set out to recruit highly qualified, university trained teachers to replace the old schoolmasters. These men were given increased pay and improved conditions and were to have the title 'Naval Instructors'. For Sullivan the year 1837 is one of major reorganisation and he sees the following 20 years characterised by the foundation of a large and well qualified group of Naval Instructors whose existence he claims was 'symptomatic of a growing realisation on the Admiralty's part of the



importance of naval education, which realisation had been brought about by the pace of technological advance'.²⁷

Yet an analysis of the Admiralty alternative to College education shows that while it may have been the intention to introduce an improved system this was never a reality. An examination of Navy Lists 1837-1840 shows that the provision of Naval Instructors, far from being effective, was in fact almost non-existent. In September 1837 only four men were serving²⁸ and by September 1838, some 18 months after the scheme had been announced, the numbers had risen to six of whom only two were graduates.²⁹ With some 34 ships in commission which would carry young officers by scheme of complement in that year,³⁰ it will be easily deduced that the vast majority received no instruction at all. The inadequacy of the system was confirmed in a House of Lords debate on 12 February 1839 when the Earl of Hardwicke complained to the First Lord that since the inception of the new scheme the Navy had been 'aboslutely for two years without education'.³¹

After 1840 Sullivan suggests there was a dramatic increase in 'a body of graduate teachers named the Instructor Branch'³² and that the Admiralty had been prompted to 'examine naval education which had assumed a greater importance than ever before'.³³ Yet close analysis shows that while there was an increase, graduates seldom accounted for more than a quarter of the numbers serving in any one year between 1840 and 1856 (see opposite). Furthermore the increase is largely explained not by men of high attainment entering the Service to

teach, but by Chaplains already serving taking on the additional role of Instructor. An 1842 Order in Council had permitted Chaplains to receive three quarters of an Instructor's pay in addition to their own, plus £5 per annum for each pupil taught.³⁴ The increase in those performing the dual role was dramatic - of 56 Naval Instructors serving in 1846 only 11 were Chaplains; ten years later the total of 96 Instructors included 47 Chaplains. Thus while numbers did increase it must be emphasised that even by 1856 the Instructors were not a body of graduate teachers but rather a group of non-graduates supplemented by Chaplains.

Contemporary comment supported the view that the ship-borne education system was inadequate in both scope and provision. Evidence to the Shadwell Committee of 1870 from a number of witnesses confirmed the situation in the years leading to 1857 as one of haphazard approaches to manning, insufficient Naval Instructors and insufficient time allowed for on-board study. Thomas J Main offering evidence to the Committee claimed 'it was impossible to supply and keep supplied all ships with Naval Instructors'.³⁵ Captain J G Goodenough in a report to the Admiralty in 1868 claimed that 'the opportunities for education on board well regulated ships receded instead of advancing during the last twenty years'.³⁶ Corbett, reviewing the progress of nineteenth-century naval education at the turn of the century, described the post college system as 'a disastrous attempt to teach cadets afloat' and stated that after 1837 'for twenty years the hopeless system continued, till in the normal way an ill waged war gave the shock that with us the necessary preliminary to administrative reform'.³⁷

These observations, combined with a rigorous examination of the number and nature of Naval Instructor appointments, suggest that Sullivan's view that in 1837 'the whole basis upon which education was provided was overhauled and put on a much sounder footing'³⁸ is based on insufficient analysis. Far from being better organised, the closure of the College and failure to recruit sufficient numbers of Naval Instructors meant that educational provision had fallen to its lowest point since the foundation of the old Naval Academy in 1729. This was the situation in the year this study commences and it was as a reaction to the inefficiency and disorganisation of officer education over the two decades since the College closure, that the system was overhauled.

The Advent of the Training Ship Concept

Despite the fact that for more than two centuries training of both officers and ratings had taken place almost exclusively in operational ships, the origins of commissioning a vessel purely for the purpose, have received little attention from previous commentators. Although Sullivan claims to have produced a detailed account of the totality of naval education during the period³⁹ he is curiously vague about the origins of the central educational institution of the Royal Navy in the nineteenth century - the training ship. He offers only the broad generalisation that the foundation was prompted by 'the inadequacy of training at sea, by pressure of international events, and by the pace of technological change',⁴⁰ although no attempt is made to justify or account further for any of these statements.

While Sullivan's exact argument is consequently unclear this thesis will demonstrate that the advent of new technology had little relationship or relevance to the origins of the training ship and that the early educational and professional courses followed therein were characterised rather by a deeply traditional approach. Similarly if 'the pressure of international events' refers to the Russian Wars 1854-56 it will be shown that while some impetus to examine training more thoroughly may have been derived from the conflict, the notion of ships specifically devoted to training was in existence and working a number of years previously. Sullivan's third explanation for the initiation of the training ship 'the inadequacy of training in operational warships' is undoubtedly correct, although it is a direct contradiction of his previous argument that the post 1837 Naval Instructor system was both successful and heralded a new era 'symptomatic of a growing realisation on the Admiralty's part of the importance of naval education'.⁴¹ It has been demonstrated in this chapter that this was not the case.

Other commentators are equally vague. Statham attributes the foundation of the training ship system to Sir James Graham, First Lord of the Admiralty 1853-1855, who he says conceived of a plan to establish 'a training ship for young seamen in order to provide a better class of man to fill the vacancies in the Fleet.'⁴² This argument is supported by Lewis who claims that Graham's experience in raising manpower for the Fleet during the Crimean crisis was instrumental in initiating the training ship Illustrious,⁴³ an argument repeated by Penn⁴⁴ and by Pack.⁴⁵

There can be little argument about Graham's contribution in actually commissioning the ship or in investing in boys' training as a long term solution to the Navy's manning problem. Nor can there be any doubt about the exacerbating effect of the Russian Wars which had reduced the First Lord, in the absence of sufficient trained manpower, to advising his Flag Officers to attempt to recruit sailors for the campaign in Norway and Sweden.⁴⁶ Nevertheless there is evidence that the idea of a ship devoted exclusively to training was both older and derived from a slightly difference impetus. Admiralty records show that as early as December 1847 brigs attached to flagships were being employed specifically for boys' training. In that year the six gun brig Rolla was allocated for service at Portsmouth as 'an exercise vessel for Boys of the Ordinary', her instructional staff being drawn from HMS Victory. In April 1848 the Nautilus was detailed for the same service at Devonport, her staff being borne in HMS Impregnable. In 1850 the Wizard was attached in the same way to HMS Ajax at Cork.⁴⁷

The introduction of such vessels was prompted partly by the drive to attract young men into the Service and thus combat the chaos of the existing manning system by providing systematic training from an early age. To this end the training or 'school' brigs carried out coastal cruises for recruiting purposes. There was also, however, a separate pastoral justification which stands as an early indication of the social transformation of the lower deck that the Admiralty was to superintend over three decades from the 1850s. Interest in the establishment of the school brigs was an acknowledgement that the educational and training needs of

boys were distinct and specialised and that it was necessary to create an environment, removed from the pernicious influence of the flagship, where education and training might be satisfactorily conducted.

This view was formally recognised by the Committee for Manning the Navy appointed on 6 July 1852 under the chairmanship of Sir William Parker. The group which consisted solely of professional naval officers - Parker, Rear Admiral Arthur Fanshaw, Captain Hon Richard S Dundas, Captain Peter Richards and Captain John Shepherd, was directed to consider 'the most efficient Means of attaining and retaining Seamen for manning the Fleet'.⁴⁸ However, few restrictions were placed upon their enquiry, the Board noting that 'My Lords do not deem it necessary to bind the Committee by any specific Instructions in the Consideration of so important a subject',⁴⁹ and the Committee made a wide range of recommendations on adjacent matters ranging from the arrangements for Prize Money to the encouragement of Sailors' Savings Banks.

Dealing with the entry and education of boys, the Committee acknowledged the contribution of the school brigs, not solely because of their recruiting value, but also because

boys should not unnecessarily be exposed at their very early age to the influence of bad example, we think their education might be more beneficially and uninterruptedly pursued if they were removed altogether from the flagships.⁵⁰

Recommendations were made for the training and instruction of a selected number of boys in the various trades practised on board Her Majesty's Ships and in paragraph 19, the commissioning of separate ships for the purposes of education and training was specifically recommended.

separate ships should be appropriated exclusively as School Ships selecting for that purpose ships of not less than two decks which are not likely to be required for early service; a systematic course of education and quiet process of training should be enjoined due regard being had to the youth of the boys.⁵¹

The report was submitted on 14 February 1853 almost coinciding with Sir James Graham's appointment as First Lord in the Earl of Aberdeen's government. Eleven months later in January 1854 the two deck 72 gun HMS Illustrious was commissioned for the purposes of harbour training for young seaman entrants. It will thus be noted that while these youngsters were nicknamed 'Jemmy Graham's novices' and while the First Lord was an enthusiastic advocate for the training ship system, credit for the initial concept should be given to the Parker Committee. Over the next ten years a further five ships at Devonport, Southampton, Chatham and Portsmouth were commissioned, as successive governments invested heavily in boys' training.

The imagination and vision of the Admiralty in this matter was the impetus for a wider industrial and reformatory ship movement in British seaports in the 50 years from 1856. Old hulks, frequently obsolete warships donated or loaned by the Admiralty, were established for

the education of homeless and destitute boys, as an extension of the Ragged School Movement. The motivation appears to have been two fold - partly to provide a pool of labour for the merchant and fishing fleets, but also as a means of controlling the rate of juvenile crime. The movement grew quickly, with ships established at Liverpool (1856), London (1859), Cardiff (1866) and Hull (1868) and later at Bangor, Bristol, Dundee and the Garelock.⁵² Under the provision of the Industrial Schools Act of 1866, boys were taught reading, writing, cyphering, practical geography and navigation. Industrial training included 'all necessary preparation for nautical duties, sailmaking and repairing, carpentering, tailoring and shoe making.'⁵³ While these ships were charitable ventures outside the Admiralty domain, they were frequently commanded and inspected on behalf of the government by naval officers, emulated Royal Naval ship routine, and were an important source of semi trained manpower for the merchant and military services.

A Training Ship for Officers

As the reputation of the Navy's ratings training ships for high standards of discipline and organisation became established, successive administrations were encouraged to increase both the number and proportion of boys entering the Service. In the ten years prior to the commissioning of HMS Illustrious the figure had averaged a vote of 2000 boys per annum.⁵⁴ In the decade after the Crimean War, with the training ship system operating, the number of boys

voted only dropped below 6000 on one occasion and by 1864 the vote accounted for about one fifth of lower deck numbers compared to one twentieth a decade previously⁵⁵. While the Admiralty did have some difficulty initially in filling the vacancies they created, the investment in boys' training as a means of stabilising manning was clear.

In contrast, the ad hoc system of training young officers was failing to produce either the numbers or the quality required to pass the Lieutenant's examination and thence proceed on to the trained strength of the Navy List. A contemporary estimate suggested that of 367 Naval Cadets admitted between 1852 and 1855 only 170 eventually passed for Lieutenant.⁵⁶ Of 155 Cadets entered in 1854 more than one third failed to pass⁵⁷ and a later survey suggested that this figure was generally valid for a ten year period from this date.⁵⁸ In contrast to the methodical structured pattern of ratings training established by the training ships, the inadequate number of Naval Instructors attempting to teach young officers in the demanding surroundings of operational warships, were failing to produce trained junior officers in sufficient numbers.

There is also evidence that not only were officer numbers unsatisfactory but that the quality was poor. Testimony to the Tarleton Committee of 1872 portrayed a picture of young officers in the 1850s spending inordinate lengths of time as Midshipmen, either lacking the ability or the inclination to pass for Lieutenant. A letter to the Committee of 19 March 1872 cited the cases of officers who

were still Midshipmen at ages ranging from 22 to 26 years old and suggested that

it is not unreasonable to suppose that such officers are of no use to the Service even if they eventually pass, and if they are entering without intention of passing they are probably setting a bad example to younger officers⁵⁹

Captain Robert Harris, first commanding officer of the training ships, noted the shortcomings of the old system, suggesting that not only was the officer loss rate considerable but that

many of those who remained were crammed for the examination and reached the Lieutenant's List with an amount of knowledge which much increased the responsibility of the Captains with whom they served.⁶⁰

The decision to emulate the pattern of boys training by commissioning a training ship specifically for officer cadets has popularly been attributed to the efforts of Harris. He was undoubtedly an important influence on the development of naval education and his pamphlet, An Historical Sketch of the General Means Adopted for the Education of Naval Officers, published in 1863, was one of the earliest and most comprehensive studies of the subject. Harris entered the Navy directly to sea in HMS Euryalus as a 13 year old in 1822. He qualified as a gunnery lieutenant in HMS Excellent and, on promotion to Commander, volunteered to study on half pay at the Royal Naval College Portsmouth, in its early days as a higher education establishment. He was appointed to command the boy

seaman's training ship in 1854 and two years later, at his own request, his son was entered in the ship as a Cadet to be trained with the seaman ratings. Statham suggests that it was this experiment that convinced the Admiralty that the scheme should be extended to all officer entrants⁶¹ - the decision being taken within six weeks of Cadet Harris completing training in January 1857. As with the majority of comment on the early years of the training ship, other sources including Lewis,⁶² Pack⁶³ and Penn⁶⁴ repeat this version of events.

While it cannot be denied that the training of Cadet Harris may have influenced Admiralty thinking, it is important to point out that by 1857 the Board had been attempting to exercise an increased degree of bureaucratic control over the system of officer entry for some years. At first these regulations were unevenly applied or ignored. Much of the memoir and autobiography of the period cites entrance and examination procedure that was absurd. Captain J E Hunter joining in 1848 was merely required to write out the Lord's Prayer and asked if he could drink a glass of sherry⁶⁵, and Admiral Sir John Fisher met a similar entrance procedure in 1854.⁶⁶ Moresby cites examination success for a Lieutenant in the 1840s on the basis of knowing which end of a cigar to place in his

mouth⁶⁷ and there are numerous examples in the 1840s and 50s of farcical entrance and exam procedures.

Despite these abuses, year by year the Admiralty extended the regulations as it sought to wrest the control of entry from individual senior officers and incorporate it into the bureaucratic structure of the Navy. This process had started in 1838 when regulations established in the wake of the College closure dictated that

Naval cadets must not be under 12 years of age, they must be in good health, fit for service and able to write English from dictation and must be acquainted with the first 4 rules of Arithmetic, Reduction and the Rule of Three.⁶⁸

In 1849 the words 'nor above 14' were added⁶⁹ and in 1851 the regulations were enhanced with no candidate allowed a second examination and all examinations to take place at the Royal Naval College Portsmouth.⁷⁰ The 1855 regulations raised the age on entry to between 14 and 15 years and prescribed an examination in

Writing English correctly from dictation:

Arithmetic Vulgar and Decimal fractions: First

Book of Euclid Algebra including simple

equations: General knowledge of Geography: Latin

or French or modern language.⁷¹

Thus by time these regulations took effect on 23 January 1856 the degree of stringency in entry requirements had greatly increased.

The culmination of these efforts was reached early in 1856 when a working party was appointed to consider the question of examination and instruction of Naval Cadets and Midshipmen. It was headed by Commodore F T Pelham, then serving as Captain of the Fleet in the Portsmouth flagship HMS Duke of Wellington, and the other naval representatives were Chaplain and Naval Instructor J A Burrough and Naval Instructor Kempster M Knapp. The three civilian participants, who were all closely involved in educational activity relating to the Service, comprised the Revd Thomas J Main, Professor at the Royal Naval College Portsmouth since 1839, the Revd George Fisher, Principal of the Royal Hospital Schools adjacent to the naval pensioners' establishment at Greenwich and the Revd Dr Chambers, Headmaster of the Royal Naval School New Cross, founded in 1833 for the education of the sons of less affluent Naval and Marine officers.

Details of the Committee and its deliberations are sparse and it seems to have been ignored by most published sources. Its status may more accurately be described as working party or consultative group, for its findings were not presented to Parliament as a Command Paper and it appears to have published no report beyond the Admiralty Circular Number 288 of 23 February 1857

which outlined the new regulations for entry and examination. Nevertheless this Circular was the most comprehensive document governing the entry, education and training of young officers produced to date and outlined not only the syllabus for cadets in the training ship but also educational practices to be adopted for midshipmen serving in the Fleet prior to passing for Lieutenant. Comprehensive professional requirements in seamanship, navigation and gunnery were dictated and examiners were warned 'to be most strict in their investigation of the qualifications of officers',⁷²

The section of Circular 288 relevant to the Training Ship consisted of some ten paragraphs. Candidates were to be aged between 13 and 15 and 'free from impediment of speech, defect of vision, rupture or physical inefficiency'.⁷³ Nominated candidates were to present themselves for quarterly examinations to be held at the Royal Naval College Portsmouth, where those aged 13 were required:

1. To write English correctly, from dictation in a legible hand.
2. To read, translate and parse an easy passage from a Latin or French author with the aid of a dictionary.
3. The leading facts of Scripture History.
4. Modern Geography, in so far as it relates to a knowledge of the principal countries, capitals, mountains and rivers and be able

to point out a place on a map when the latitude and longitude are given.

5. Arithmetic including Proportion and a fair knowledge of Vulgar and Decimal Fractions.
6. Algebra, including Fractions.
7. The First Book of Euclid, to proposition XXXII inclusive.

Those over the age of 14 were, in addition to the above, to demonstrate the ability to use 'Globes and give definitions of Latitude, Longitude, Azimuth, Amplitude and the other circles of the Sphere' A practical knowledge of Plane Trigonometry, Vulgar and Decimal Fractions and Algebra was also required.⁷⁴

After serving the minimum three months aboard the Training Ship any Cadet who felt competent could opt to be examined, with discharge from the Service the penalty for failure. In practice this meant that most Cadets spent between six and twelve months on board before completing a leaving examination which comprised all the entry subjects excepting Latin and in addition included:

In Arithmetic - Insolution and Extraction of the Square Root

In Algebra - Simple Equations

The Elements of Geometry as contained in the textbook for the use of Greenwich School, by John

Murray 1854.

Plane Trigonometry and the solution of practical and useful problems.

Spherical Trigonometry, the mode of solving Triangles and its application to simple Astronomical problems.

In Navigation - A 'Days Work' to find the Latitude by meridian altitudes and Longitude by Chronometer
Nautical Instruments - To explain and use the Sextant, Azimuth Compass, Artificial Horizon and Theodolite

Some knowledge of the mode of Surveying and the construction of charts.

French, as far as 50 lessons of Ollendorfs method of learning French and the reading and translating of an easy passage from a French author without the aid of a dictionary.⁷⁵

Running parallel with academic studies was a comprehensive course in seamanship which included practical boatwork, rigging, sail handling and methods of mooring. Specimen lectures were also given on practical astronomy and nautical instruments.

Circular Number 288 came into force in May 1857 and thus applied to the next quarterly entry of cadets in August of that year. HMS Illustrious which had been in commission for boys' training at Portsmouth since January

1854 was selected for the purpose and under the existing commanding officer, Robert Harris, was moored off Haslar Creek to receive the first batch of 23 cadets in August 1857. From this date, for the first time in British naval history, young officers were subject to a common, unified system of entrance examination and initial training.

Harris was assisted by three staff officers - Lieutenants George S Paterson, Marcus Lowther (for Sealark brig) and F T Thompson (for Bullfinch tender) and an academic staff of Chaplain and Naval Instructors W R Jolley and R M Inskip, and Naval Instructor K M Knapp who had helped to devise the syllabus as a member of the Pelham Committee. As the quarterly batches of students overlapped and the numbers increased, the staff was supplemented by Lieutenant George S Nares (January 1858) and Naval Instructor J G D Barton (July 1858). The proximity of the ship to Portsmouth dockyard ensured a supply of visiting instructors, including W D Hay the Dockyard Chemist and expert on hull growth and corrosion and Thomas Brown, Chief Engineer in HMS Excellent who was appointed to give lectures on the steam engine. Physical training and swimming were taught by a Mr Tuohy, Admiralty Professor of General Exercise and Gymnastics, who ran a semi-official establishment for the purpose at Gosport.⁷⁶

Although Statham suggests that despite 'a great dearth of actual record during these times, there is abundant evidence of an implicit nature that the new experiment was turning out to be a complete success',⁷⁷ there were clearly some teething problems. Harris' own memoir, while noting that 'the Midshipmen who entered just before the new system commenced have painfully felt in many instances, the disadvantages under which they laboured',⁷⁸ acknowledged difficulties in the new training venture. These centred around the extensive nature of the syllabus, which Harris considered too advanced for the length of study available,⁷⁹ and the fact that Cadets of different ages were not remaining the same time under instruction which 'rendered the arrangement of classes very difficult and interfered with the steady progress of instruction'.⁸⁰

The result was a redrafting of the 1857 regulations, subsequently published as Admiralty Circular No 393 of 23 October 1859,⁸¹ which came into force on 1 April 1860. From this date Cadets who were to be entered between 12 and 14 years old were all to have twelve months instruction in the harbour training ship. On completion it was envisaged that three further months would be spent in a sea going training ship for the purposes of practical instruction, on completion of which, subject to satisfactory conduct, youngsters would be appointed to the Fleet with the rate of Midshipman. The Eurydice was commissioned for this purpose although both Statham and Harris suggest that she was never actively employed, the latter attributing this to the

prevailing financial stringency in naval matters.⁸² A subsequent Order in Council of 20 November 1861 dropped the requirement to spend time in a sea going training ship and also redefined the relationship between the ranks of Cadet and Midshipman. From this time all Cadets gaining a first class pass were immediately promoted Midshipman, while holders of second and third class passes had to serve a further six and twelve months respectively before being rated up.

An increase in the number of officers under training by 1859 prompted the introduction of a larger and more commodious vessel and on January 1st of that year, the 120 gun three decker HMS Britannia was commissioned to replace the Illustrious. She displaced 2616 tons and although launched in 1820 had seen recent service in the Crimean War, on the completion of which she had been laid up. She was moored in the berth of her predecessor and under the same commanding officer had a complement of 236 Cadets in 1859⁸³ - the largest number of officers under training for a decade. This ship, the fourth of the name, was employed in the training role until July 1869 when at Dartmouth she was replaced by the even larger 131 gun Prince of Wales which was renamed to become the fifth Britannia.

Life in the Early Training Ship

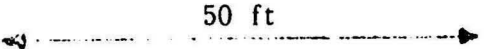
Details of the early days of the Illustrious and Britannia at Portsmouth are sparse. It is known that the number of Cadets aboard fluctuated from 105 in 1857 to 140 in the following year with the highpoint of 236 in 1859 and

HMS BRITANNIA 1st RATE LINE OF BATTLESHIP, 120 GUNS
LAID DOWN PLYMOUTH 1813, LAUNCHED 1820, 2616 TONS
CADET TRAINING SHIP PORTSMOUTH/PORTLAND/DARTMOUTH 1859-1869

IMAGE REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES



16

1.  APPLIES TO
THE PROFILE OF THE SHIP ONLY
2. AS A TRAINING SHIP BRITANNIA WOULD
HAVE FLOATED PROUD OF HER LOADLINE,
HENCE THE RELATIONSHIP OF THE
ACCOMMODATION TO THE WATERLINE
IS NOTIONAL.

Sources

1. E P STATHAM THE STORY OF BRITANNIA (1904) p.54 & 81
2. B LAVERY THE SHIP OF THE LINE (1983) p.135/136

then a decline to 179 and 174 in 1860 and 1861 respectively.⁸⁴ Among them was HRH Prince Alfred (entered 31 August 1858) second son of Queen Victoria who was a student in both ships although he lived ashore throughout his training and attended for daily instruction only. Another distinguished student was C W D Beresford, later Admiral Lord Charles Beresford, who joined Britannia in December 1859 and remained until the end of March 1861. His memoirs give only a vague impression of life on board although he confirms that the sea training ship Eurydice was employed for instructional purposes moored alongside the training ship.⁸⁵

The principal published witness to life aboard is the historian of the ship, E P Statham, who was a Cadet 1861/1862. Considering the degree of detail devoted to the later years of the ship, he is strangely reticent about the period he should have been able to relate in the most detail. He claims 'there is no record available' of the number of Cadets entered in 1860 and 1861 (it was 179 and 174 respectively)⁸⁶ and is generally vague about the exact nature and conduct of training. He does provide a brief description of the physical layout of the Britannia which he describes as 'new and roomy, well suited to the purpose according to the ideas of the time'.⁸⁷ Britannia was a 'three decker', a term implying three gun decks, with an orlop deck, or cockpit beneath and a weather deck above, making a total of five in all. A diagram detailing the layout derived from Statham's description appears opposite.

Fortunately evidence to the Rice Committee of 1874 by

Lieutenant W F S Mann RN provides a previously unconsidered portrait of the detailed routine in the Britannia at Portsmouth between 1859 and early 1862. He entered the ship as a 13 year old product of the Royal Naval School, New Cross and due to illness spent an extended period of 15 months in the ship. He explained to the Committee that Cadets of the time were divided into two watches spending alternate days, with the exception of Sunday, studying academic subjects and practical seamanship. On 'study days' Euclid and arithmetic were pursued in the mornings followed by dictation from half past one until four o'clock, with five minute breaks during which time cadets could run about the upper deck. The non-academic days were characterised by sailing, deckwork and working aloft. In the winter, drill sessions in an adjacent blockhouse were substituted for mast work. There appeared to be ample time for relaxation with Mann noting that 'Always about 4 or half past we went on shore or away pulling in boats and so on'.⁸⁸

Statham's description of the sleeping arrangements was supported, with the witness affirming that the Cadets slept in the lowest deck in the ship, in hammocks narrowly spaced approximately 16 - 18" apart, although he confirmed that ventilation on this deck was more than satisfactory, due to the cutting of additional scuttles in the ship's side.⁸⁹ There was apparently very little bullying, although all new entrants underwent an initiation ceremony similar to the traditional 'crossing the line', which involved climbing the mast and receiving a mouthful of grease.⁹⁰ Mann denied the existence of a fagging system and claimed that 'at the time

I joined there was a lot of capital fellows who kept things of that sort down with a high hand'⁹¹. Three classes of punishment were described - Class A consisting of loss of privileges, Class B - 'hand spike drill for half an hour and to stand in the middle deck for half an hour with leave and pudding stopped'⁹² and Class C which involved confinement to the lower deck for a specified period.

The portrait of life aboard the early Britannia seems innocuous enough - certainly when compared to a comparable shore side public school of the period. Mann dismissed the suggestion that the amount of study overtaxed Cadets, noting that the system was less severe than at present. There was no evidence of any official form of corporal punishment ('handspike drill' merely consisting of exercises with wooden bars, akin to Indian clubs). While accommodation conditions were basic, Lewis' portrayal of 'the still airless orlop deck'⁹³ is clearly wrong and fails to take account of the enlarged scuttles which Mann claimed provided too much, rather than too little, ventilation especially in winter.⁹⁴

By examining other evidence given to the Rice Committee it is also possible to make an assessment of the efficiency of the Britannia up to and including 1862. One of the witnesses called was Vice Admiral Alfred Phillips Ryder, a leading advocate of improvement in the naval education system and a prominent member of the Royal United Services Institution, where he both chaired seminars and read papers on the subject in the 1870s. He had entered the Service in 1833, passed for Lieutenant six years later, and studied at the Royal Naval College Portsmouth where he

was considered to be one of the outstanding officers of his generation.⁹⁵ Ryder is a particularly valuable figure in tracing the development of educational provision in the Service, for as a Captain he had served as Private Secretary to Edward Seymour, Duke of Somerset, First Lord of the Admiralty 1859-1866. Much of the evidence he offered to both the Shadwell Committee on Higher Education of 1870 and the Rice Committee on Cadet's Education 1874 is thus based not only on a lifetime interest in the subject but also on first hand experience of policy within the Admiralty in these years.

Ryder offered a detailed comparative analysis of the Britannia and the system that preceded it, based upon 'wastage' - ie the number of Cadets and Midshipmen who failed to pass for Lieutenant due to voluntary release or discharge for misconduct. First he noted the disastrous effect on retention rates of the closure of the Royal Naval College Portsmouth observing;

that the number of collegians who were discharged from the service for misconduct in each year was much smaller than the number of non collegians so discharged... that the number of non collegians who voluntary abandoned the service as a profession was also relatively more numerous than the collegians who did so...

that the number of midshipmen discharged owing to misconduct and by request increased rapidly after the Royal Naval College was abolished...⁹⁶

This supported statistical analysis of the period cited in this chapter by Harris⁹⁷ and the evidence offered to the

Tarleton Committee, both of which complained of low standards and high wastage rates in the interregnum

The improvement in retention coincidental with the introduction of the training ship is then outlined, with Ryder noting that in the ten years prior to 1857, of 1131 Cadets entered, 177 had left by request, 160 had been discharged for misconduct making a loss rate of 337 or about one third. A post Britannia survey from 1857 to 1862 incl, indicated that of the 874 midshipmen who had entered and proceeded to the Fleet, 23 had resigned and only 11 had been discharged for misconduct, approximating to one twenty-sixth of the entry. While Ryder acknowledged that for statistical reliability terms of years of equal length must be applied, he argued that the figures showed that 'in spite of the great difficulty attending the experiment, the Britannia boys have come triumphantly out of the trial',⁹⁸

There was indeed considerable favourable comment about the new system. Ryder cited an 1863 Admiralty return concerning the standards of 593 Midshipmen and Cadets currently serving in the Fleet which he said indicated that 'the Britannia does her work right well and infinitely better than the system which for 20 years 1836-1856 took boys from any place of education and sent them at once into a sea going ship'.⁹⁹ Statham quotes from the letters of a number of sea going commanders and flag officers who he says were 'unanimous in their praise of the qualifications and conduct of youngsters sent to sea in the early days of the Illustrious and the Britannia'.¹⁰⁰ There is also evidence that the ship rapidly became the focus of public and service press attention - the Army and Navy Gazette

suggesting that Britannia 'from a very small and in reality insignificant beginning, has assumed a character of national importance',¹⁰¹.

While there can be little doubt that the increase in efficiency prompted by the new system was appreciated and welcomed, particularly when compared with the disastrous, wasteful system it replaced, there is also evidence that the Britannia was not the universally admired institution that Statham portrays. In fact despite much favourable comment the ship was also the subject of considerable criticism and debate from its earliest days. In view of Statham's anodyne treatment of the early period and in the light of Sullivan's claim that the ship was subject only to 'gradual discontent as time went on',¹⁰² it is important to establish the nature and content of this previously unconsidered debate.

Contemporary Criticism of the System

Contemporary criticism of the Britannia may be considered at a number of distinct and separate levels. The first was concerned with the minutiae of the training ship - detailed discussion and argument about matters such as location, the nature of the syllabus, and the inevitable time honoured arguments about 'declining standards'. This was the very stuff of the correspondence columns of an extensive Service press from the outset. This included at various times during the period the Army and Navy Gazette and the Broad Arrow published weekly, the monthly United Service Magazine, and the Naval Chronicle and Sailors Home Journal (later the Naval History of our Times) also

CADETS' SLEEPING SPACE
- HMS BRITANNIA
(COLLEGE ARCHIVE)

IMAGE REDA

IMAGE REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES

published monthly which claimed to detail 'every Admiralty Circular Issued, Every Naval Despatch Gazetted, the Doings of Every Naval Station at Home and Abroad, Every Statistical Return Published in connection with the Navy'.¹⁰³ A survey of these publications indicates a continual preoccupation with the policy, standards and organisation of the training ship.

Much of this was ephemeral in nature and evidence as Rodger has suggested that 'legions of unemployed officers on half pay, out of touch with the Service and out of sympathy with the times had ample leisure to put forward their often reactionary and unrealistic views'.¹⁰⁴ As early as November 1860 less than two years after the Britannia commissioned, a correspondent to the Army and Navy Gazette complained that 'standards have generally deteriorated over the last year' and that Cadets 'would have been better if they had never seen the Britannia'.¹⁰⁵ Typically a subsequent edition published a rejoinder¹⁰⁶ and in this manner similar discussion rumbled along over the years. No matter was too trivial for consideration with subjects ranging from the smoking habits of trainees,¹⁰⁷ the brand of hand soap most suitable for young officers¹⁰⁸ and the desirability or otherwise of sending Cadets to the Arctic as part of their initial education.¹⁰⁹

Yet in the midst of the ephemeral and the eccentric, the Service press also produced serious and constructive consideration of the nature and quality of officer training. The Army and Navy Gazette was particularly notable in this respect devoting four leading articles to the subject in 1862, which reflected areas of contention in

the Britannia debate that would be rehearsed continually over the following five decades. These included the inadequacy of the academic courses in which lack of external validation made the staff 'auditors of their own accounts',¹¹⁰ the health and physical condition of Naval Cadets and the desirability of establishing a naval college ashore.

It is instructive to note that, contrary to the Sullivan view of an increasing dissatisfaction with the training ship in later years, this debate was evident in the earliest days of the Britannia. In November 1862, with the ship only four years old, the editor of the Army and Navy Gazette noted:

that the close schoolrooms and the suffocating sleeping spaces on board our model training ship, are quite sufficient to sew diseases which will, if not immediately injurious, ultimately sap the lives of the unlucky boys who are unconsciously inhaling a poisonous atmosphere¹¹¹

The corollary of this argument was that the ship should be replaced by a naval college, with the paper noting that the First Lord now had 'an excellent opportunity of pressing upon his colleagues the value of a naval college to be erected in some convenient locality'.¹¹²

The question of whether training should best be conducted in the Britannia or in a purpose built college was also considered by the Naval Chronicle which initially favoured support for the ship. It noted in October 1861 that:

the Naval Cadet should be educated afloat because:

1. Any advantages which may attach to shore education the Naval Cadet has availed himself of prior to his

nomination.

2. The very fact that the Naval Cadet is living and sleeping in a ship surrounded by salt water is itself a coadjutor of no small amount.¹¹³

Again in January 1863 the paper considering the subject of a naval college noted, without citing evidence, that 'in the opinion of very many of our ablest and most distinguished Admirals there is no need for anything of the kind',¹¹⁴ and concluded that if 'it be resolved to form a college, then it should be optional for the nominee to join or receive his education elsewhere'.¹¹⁵ While this comment is unofficial and the policy somewhat inconsistent - the same paper noting of the Britannia in 1870 that 'the sooner she is sold even at a sacrifice the better',¹¹⁶ it is clear evidence of a debate via both the correspondence and editorial columns of the Service press about the efficiency of naval training from the earliest days.

There is also evidence that a body of opinion favouring a college alternative existed outside of the editorial columns of the papers. The debate for example found recognition in the report of the Select Committee on Promotion and Retirement in the Royal Navy which was appointed in March 1863. Its primary purpose was to recommend steps to bring order to the chaotic career structure of the officer corps and thus the bulk of its deliberations are not relevant to this work. However, despite a disclaimer that the subject of education and training was outside its remit,¹¹⁷ the Committee in considering the question of advancement, were forced to assess the qualifications and training of those on the first

rung of the promotion ladder. The report thus provides a useful insight, particularly into the thinking of senior naval officer witnesses about how naval education should best be conducted. Its findings have not been considered by any previous study.

Under the chairmanship of the Rt Hon Spencer Walpole the Committee heard evidence from 20 naval officers of Commanders rank and above who were presented with a series of propositions, including number eight - 'That a naval college be established with ships attached and that no Cadets be sent to sea under the age of sixteen'.¹¹⁸ Unfortunately the responses from witnesses tended to be rather abrupt with little elaboration on the views expressed, however despite a considerable range of opinion regarding entry age and a general consensus that Britannnia was doing valuable work the evidence was overwhelming. All witnesses, with the exception of Admiral Sir Rodney Mundy, were in favour of replacing the ship by a naval college.

The most important figure to testify was the - then First Lord of the Admiralty, the Duke of Somerset, who was interviewed at length. While he was happy with the sub 14 year old entry, he too was a supporter of a shore based college, noting that

if you had a college on shore it would give you in my opinion many advantages with reference to their education and perhaps more opportunities for giving them a scientific education than there can be on board a ship. It is of great importance that they should have an opportunity of obtaining a scientific education.¹¹⁹

With a keen appreciation of the financial stringency of the times he felt that such an institution might be made self supporting and that while young officers would form the core of the student body, civilians might also be admitted on a fee paying basis.¹²⁰

As it pertained to the progress of the young naval officer from his entry as a Cadet to his commission as a Sub Lieutenant, the Committee expressed general satisfaction with the state of officer education noting that 'nominations are fairly made, the education is good but perhaps confined too much to the school and too little to seamanship'.¹²¹ On the question of building a naval college it noted that 'there are matters upon which much interesting evidence has been given, but it is rather for the Admiralty than this Committee to decide upon them'.¹²² Despite this self effacement, its final list of recommendations included

as regards the advancement and promotion generally of Naval Cadets and Commissioned Officers, your Committee recommend -

1. That the expediency of establishing a naval college with training brigs and small steamers attached to it, should be considered by the Admiralty.
2. That the college shall be made, as far as practicable, self supporting¹²³

Although no college was built there is evidence that the First Lord examined the possibility in some detail at this time. His then Private Secretary, Captain (later Vice Admiral) A P Ryder told the 1874 Committee on the Education of Naval Cadets that in 1863, at the First Lord's instigation, he had carried out a survey of the views of ships' captains presently serving or who had served in the

previous six months. This amounted to some 54 senior officers who were asked firstly whether they were in favour of a naval educational establishment or whether boys should be sent direct to sea, and secondly if such an establishment should be ashore or afloat. The response was overwhelming, with Ryder reporting to the First Lord that

A College on shore with training vessels attached to it is the proposal then that by an immense majority finds favour with naval officers of experience who have thought on the subject. I have no hesitation therefore in claiming that by evidence of the facts and by the evidence of the almost unanimous opinion of naval officers then afloat who had formed an opinion, we ought to have a naval educational establishment and that it ought to be on shore.¹²⁴

In consequence Ryder claimed that 'the Duke of Somerset's mind was I believe very much made up on the point in favour of having a college on shore',¹²⁵ and that the proposal proceeded as far as a survey of Southern England, with '38 sites reported upon, a plan of each site made and the places marked upon the Admiralty chart'.¹²⁶

Why such plans were not advanced is unclear, although Ryder noted that the coastguard survey of potential sites was later mislaid and never subsequently found.¹²⁷ Clearly it would have been difficult in a period of particular financial stringency to gain approval both to disestablish Britannia and build a new naval college. The Navy of the period was a prime target for economies in public expenditure and the 1861 Estimates were not matched for a further 17 years.¹²⁸ So stringent were cost controls that Somerset, far from being able to build a new college, was unable to support a small

sea training vessel attached to Britannia, noting in 1863 that 'the fitting out of a ship for that purpose would cause great expense and consequently I gave up'.¹²⁹

Nevertheless it is clear from the content of the contemporary Service press, from the evidence of senior officers to the Select Committee on Promotion and Retirement, from the 1863 survey of senior sea going officers and from the extensive site investigation quoted in Ryder's evidence to the Rice Committee, that the prospect of a shore based college was both popular in the Service and under active consideration in the Admiralty, even in the earliest days of the training ship. That this should be so represents a marked contrast in the thinking of senior officers compared with their counterparts of 30 years previously. It has been shown that contempt for scientific method and a strong prejudice against college training - to the extent that some commanding officers refused to accept college trained boys in their ships - were significant factors in the closure of both the School of Architecture and the Royal Naval College Portsmouth.¹³⁰ The evidence is that three decades later, with the Navy's technological revolution gaining pace, many senior officers acknowledged and welcomed the prospect of a shore based college and that in the Duke of Somerset's administration 1859-65, there was also a degree of political support for such an institution.

It will thus be apparent that while the introduction of the Britannia system undoubtedly resulted in higher retention rates amongst young officers, and that their seniors, noting improvements in the calibre of Midshipmen and Cadets, welcomed the advance it represented over the previous system, it was neither free from criticism nor did it preclude a

vigorous debate about the efficacy of a naval college. Indeed there is considerable evidence that such an institution was actively supported not only in civilian Select Committee and the Service press, but also amongst the officer corps. The failure to establish and identify this in previous accounts is an important omission in the evolution of naval education and one that assumes some significance when subsequent changes of conservatism in the officer cadre are examined.

Later Assessments of the Training Ship System

It will be apparent that the origins, evolution and early development of the training ship system up to 1862 have not previously been exposed to rigorous analysis. That this should be so is surprising for it has been shown that the establishment of the system was in many ways logical, sequential and in general accordance with wider aspects of Admiralty policy. There are two important prerequisites for understanding the conditions of foundation. The first is accurately to identify the disastrous state of officer education in the wake of the closure of the Royal Naval College Portsmouth in 1837. The succeeding 20 year period witnessed a failure to recruit a corps of Naval Instructors of suitable status and size to staff the alternative system of educating young officers solely at sea. This resulted in Cadets and Midshipmen of such inferior quality, and with a disastrous retention rate, that the Lieutenants list of trained men was always inadequate. Only when this situation is properly understood can the various Admiralty measures aimed at improving officer quality in the 1840s and 50s via increasingly stringent entry requirements be placed in

perspective. Circular 288 of 1857 which directed officer training to the first uniform system of entry via the Illustrious and eventually the Britannia was the final extension of this process.

The second strand of the argument is to recognise that in the midst of the chaos in officer training the recruitment of boys was proceeding in a methodical, organised manner. This was primarily part of a long term process to combat fluctuation in manning, but it also arose from a recognition within the Admiralty that some form of specialised environment was required for young men to be educated and trained. It is important to note that this justification is evident well before pressure placed on manning by the Crimean War and that it found expression not through public or parliamentary criticism, but via a committee of senior naval officers. The adoption of the training ship concept for young officers was thus a natural extension of a policy that had been operating successfully for a number of years prior to 1857.

It is clear that neither of these central arguments has been investigated in sufficient depth in previous work. The account of the foundation of the training ship by its principal commentator Statham, does not give sufficient consideration to the years leading to the establishment of the system. The result is that he is forced to explain its inception solely in terms of the personalities involved. Thus the decision to commission a ratings training ship is attributed simply to the personal vision of the First Lord of the day, Sir James Graham. A similar process may be observed in the adoption of the ratings training ship for the use of young officers, where Statham sees the example of Cadet

Harris serving in the Illustrious as persuading the Admiralty to revise its training policy. It has been demonstrated that while the influence of these two personalities cannot be discounted, there was a substantial and complex series of events underpinning both decisions.

While the Statham work is essentially anodyne, infused with deference to his alma mater, and light on substantiable reference, it does appear to have been used by almost all modern commentators as a template, not merely for the history of the Britannia but as a source for wider and more generalised comment on the subject of officer entry, education and training in the second half of the nineteenth century.

Thus Statham's designation of Sir James Graham is dutifully repeated by almost all other commentators including Penn, Lewis, Pack and Sullivan with the result that the existence of the small sea going training ship ('school brigs') since 1847 is unrecognised, the pastoral dimension in the training ship concept is missed, and the work of the Parker Committee who made the actual recommendation is ignored. The attractive notion of the experience of Cadet Harris persuading the Admiralty to review its policy is similarly replicated by all published commentators, thus ignoring the substantial effort on the part of the Admiralty to regulate the system of officer entry over the previous 20 years, and the work of the Pelham Committee whose recommendation, encompassed in Circular 288, actually initiated the system.

While Sullivan has considered the state of naval education prior to the inception of the training ship system

it is an inadequate examination based upon insufficient analysis. His argument that a rapid increase in the number of Naval Instructors after 1840 amounted to 'the establishment of a genuinely professional corps of naval educators',¹³¹ for example is incorrect. The increase is explained rather by the number of Chaplains already applying to receive the extra pay allocated for the Instructor's role. Nor can it be agreed that by 1856 'a body of graduate teachers named the Instructor branch',¹³² had been formed, for it has been shown that in that year of the 96 members serving less than one third were graduates. In fact the majority of the Instructor branch were not 'graduate teachers' but rather a group of non-graduates supplemented by serving Chaplains who were prepared to teach in addition to their normal duties.

Although Sullivan is considering the extent of educational provision, he makes no attempt to reconcile the number of Instructors with the billets available. He thus fails to appreciate that despite a nominal increase in staff there was always a serious disparity, with many ships spending extended periods without the services of a Naval Instructor. Statistical analysis, supported by much contemporary criticism, confirms the inadequacy of a system that produced inferior young officers, taking inordinate lengths of time to pass for Lieutenant. Similarly during the 20 year period between the college closure and the commissioning of the first officer training ship the Service was forced to sustain wastage rates in officer training unmatched at any other time in the century. Thus Sullivan's claim that in 1837 'the whole

basis upon which naval education was provided was overhauled and put on a sounder footing',¹³³ is without foundation and is based on little more than observing a nominal increase in the number of Naval Instructors appearing in the Navy List.

Having arrived at this incorrect conclusion, Sullivan in consequence is unable to account in detail for the major overhaul to the system in 1857. Although he devotes a substantial portion of his thesis to the history of the training ships the reasons for their foundation are merely summarised as being derived from 'the pressure of international events',¹³⁴ and 'the pace of technological change'.¹³⁵ Neither justification is explained or articulated either here or at any subsequent stage of the thesis. While he does acknowledge 'the inadequacy of instruction at sea',¹³⁶ as a factor, this also remains undeveloped - presumably as further investigation would dismember his argument that education had been placed on a sounder footing when the decision to conduct it solely at sea, was taken in 1837.

The inadequate coverage of the origins of the training ship is extended into its early history, where the limited comment on Illustrious and Britannia up to 1862 is again typified by a reliance on Statham. Unfortunately despite having personal experience of the system, this account of the early years is particularly sparse. The most serious omission is the failure to acknowledge the extent of contemporary criticism of Britannia or the debate about its replacement by a naval college. While Statham is cognisant

of the 1863 First Lord's survey which found a deal of support for a shore based institution¹³⁷ he does not place it in the wider context of Service press criticism, the 1863 Select Committee recommendation, or the extensive site investigation. Statham is content to dismiss the survey findings on the grounds that there was 'an abundance of contrary evidence' and that senior officers who were unhappy with the products of the Britannia 'must surely have been exceptionally unfortunate in the youngsters sent to them'.¹³⁸

In this bland unsubstantiated dismissal he is closely followed by Sullivan. By the time his account reaches 1862 he reveals an unwillingness to include any real historical detail beyond that already narrated by Statham - to the extent that there is a high degree of coincidence in the selection of material in the two accounts. A detailed examination of all Sullivan's references pertaining to the Training Ship from the date of its inception to the 1904 publication of Statham's work reveals this to be the case. Details appear at Annex A, where it will be noted that of the 115 references that relate to the era 1854 to 1904 no less than 73 are based upon Statham or sources directly cited in his work. As the remaining 42 are in turn derived from only two further secondary sources, it will easily be deduced that Sullivan's references for the period 1854 - 1904 stem from just three secondary works. This clearly implies a paucity of original research in a major sector of naval education over a 50 year period, and seriously questions the independence and value of Sullivan's comment in this area.

The dependence upon Statham has already been noted in

work of others. It is however particularly significant in the Sullivan thesis for while other commentators are characterised by a limited remit or only aim to examine education as a fragment of wider naval social history, Sullivan's claim that 'persistent research has enabled a detailed account to be written of the totality of naval education',¹³⁹ is a considerable one. The combination of this extensive remit, with an inadequate research base in a specific area, over an extended period, means that initial misconceptions are applied to a wider field of naval education with a consequent distorting effect.

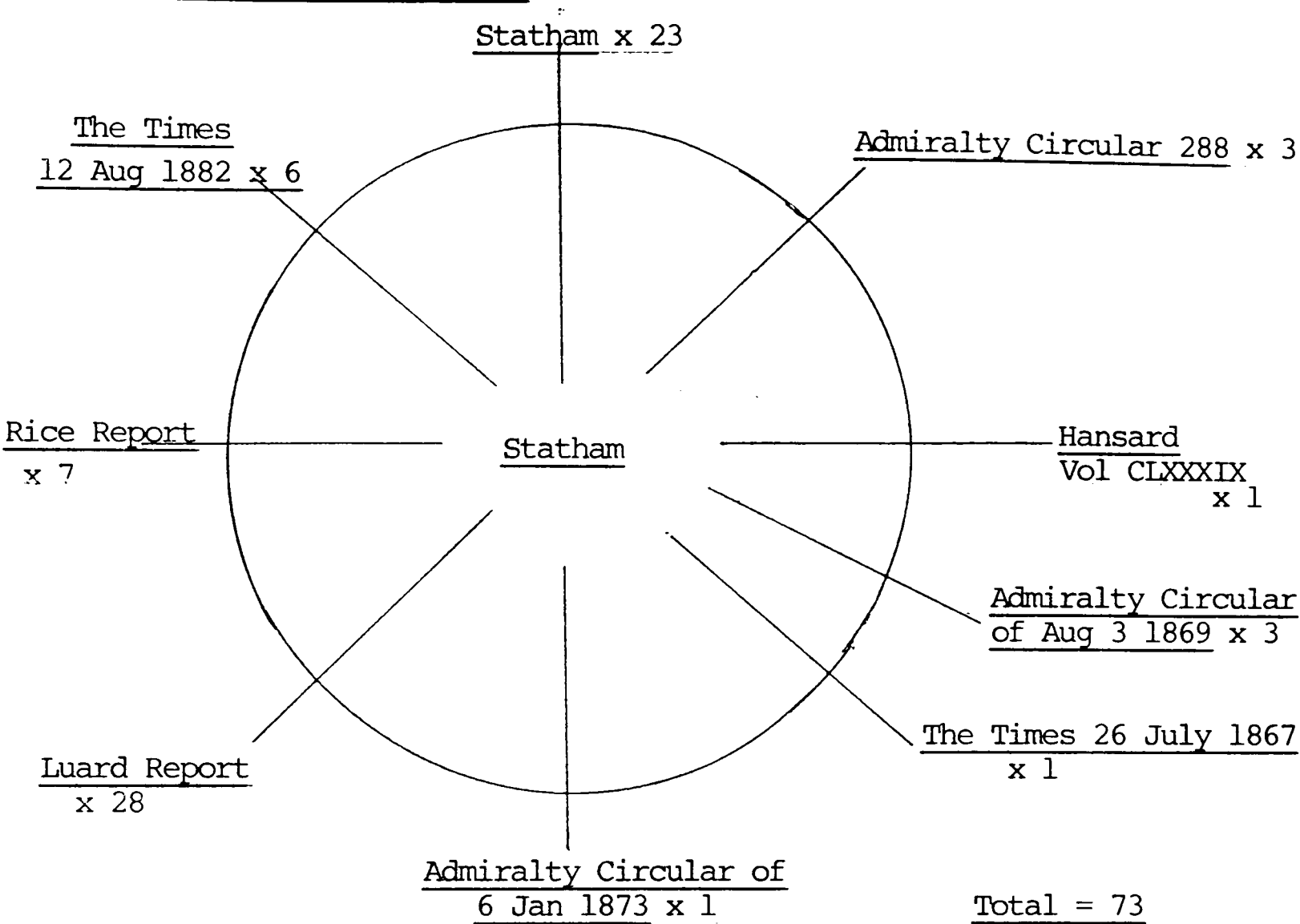
That previous coverage of the origins and initial years of the officers training ship should be characterised by lack of analysis and repetition without verification is surprising, for the early evolution was much in accordance with the climate of the times. Once the impetus behind the foundation is adequately understood the standardised officer entry via the training ship was both logical, necessary and the parallel to practice firmly established in boys training. When the system was shown to produce an improved calibre of officer with a better retention rate it was pursued - not out of some vague nostalgia for the days of sail but because the old ship represented a cost effective environment for training, at a time of acute financial stringency.

It is important to note that from its inception, the efficiency of the training ship was a matter of extensive debate. While in some ways the concept of a static harbour training ship united those who favoured education at sea and those who supported a dedicated educational institution, it

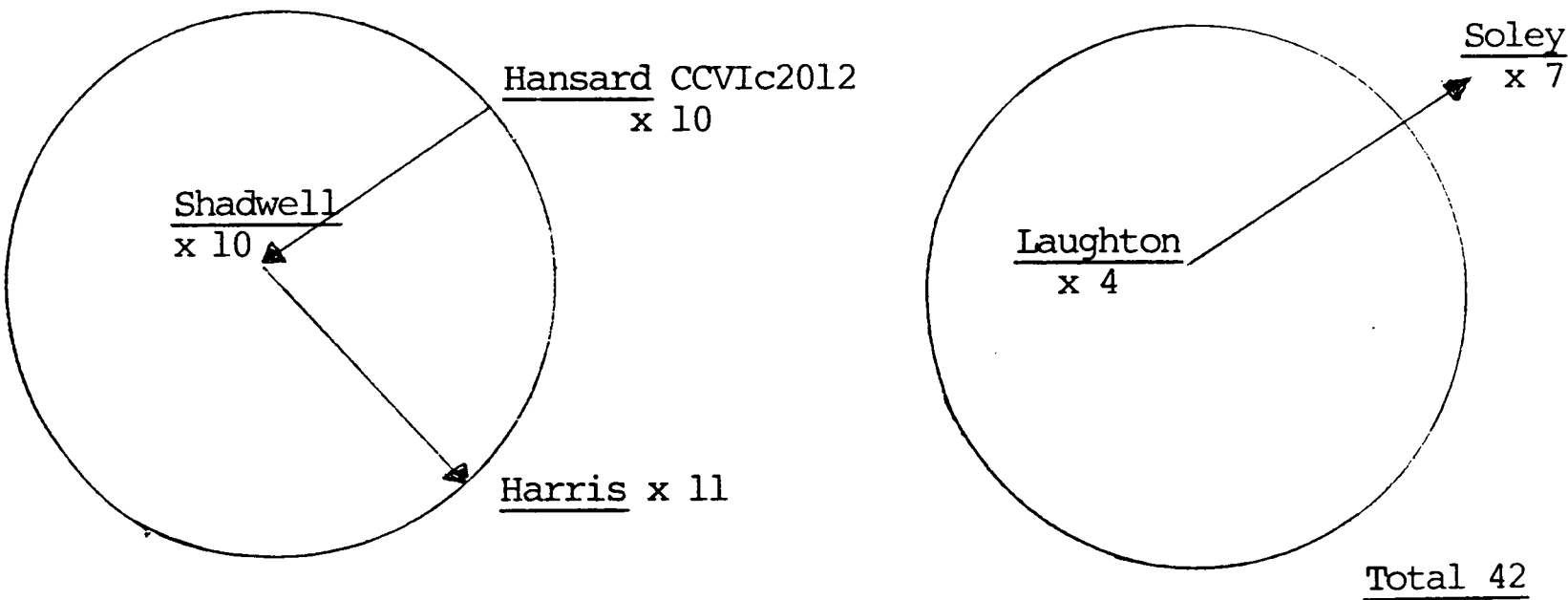
did not quash continuing discussion. It is particularly important in the light of formal proposals a decade later to found a naval college, to note that such suggestions were in evidence from the earliest years. Further it will be observed that far from the Service reacting to pressure from external sources, the initial impetus to improve and regulate training came, via the Parker Committee, from within the Navy. Similarly, once the training ship had been commissioned there was still a continuing debate amongst senior officers about the respective worth of training at sea or on shore.

Source Derivation - Chapter 12 - Sullivan Thesis

Statham Dependence 1854 - 1904



Laughton/Shadwell Dependence 1854-1904



Summary

References (Total)	129
References (1854-1904)	115
References dependent on Statham	73
References dependent on Laughton/Shadwell	42
Independent References (ie not drawn from a previous source)	0

Chapter One - Notes

1. F B Sullivan 'The Naval Schoolmaster during the Eighteenth and Early Nineteenth Century' Mariners Mirror Vol 62 1976 p311
2. M Lewis A Social History of the Navy 1793-1815 (1960) p294
3. Admiralty Order in Council 23 February 1729 ADM 1/5156
4. F B Sullivan 'The Royal Academy at Portsmouth Vol 63 1729-1806' Mariners Mirror 1977 p320
5. R Harris A Historical Sketch of the General Means Adopted for the Education of Naval Officers (1863) p9
6. F B Sullivan op cit (1977) p324
7. M Lewis op cit pl45
8. S Bonnett The Price of Admiralty (1968) pl25
9. T Byam-Martin Journals p63
10. J Gathorne-Hardy The Old School Tie - The Phenomenon of the English Public School p66
11. 'State of Education in the British Navy' United Services Journal (1830) p526
12. F B Sullivan op cit (1977) p311
13. M Lewis The Navy in Transition (1965) pl03
14. M Lewis ibid pl00
15. F B Sullivan op cit (1976) p312
16. ibid p311
17. G Mackenzie The Royal Naval and Military Calendar (1821) pl13
18. Admiralty Order in Council 28 February 1822 ADM 1/5232
19. F B Sullivan The Evolution and Development of Education in the Royal Navy Reading PhD (1974) p454

Chapter One - Notes (continued)

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|-----|--|---|--|
| 20. | H W Dickinson | 'Officer Education in the Royal Navy 1806-1857' | <u>London MA</u>
(1984)
p37a |
| 21. | F B Sullivan | op cit (1976) | p325 |
| 22. | C J Bartlett | <u>Great Britain and Sea Power</u>
(1963) | p47 |
| 23. | H W Dickinson | op cit | p69 |
| 24. | | ibid | p68 |
| 25. | | ibid | p65 |
| 26. | F B Sullivan | op cit (1976) | p325 |
| 27. | F B Sullivan | op cit (1974) | p131 |
| 28. | <u>Navy List</u> | correct to 20 Sept 1837 | p132 |
| 29. | <u>Navy List</u> | correct to 20 Sept 1838 | p130 |
| 30. | C J Bartlett | op cit | App III |
| 31. | <u>Hansard</u> 3rd Series VOL XLV (1839) | | COL 263 |
| 32. | F B Sullivan | op cit (1974) | Preface |
| 33. | | ibid | p117 |
| 34. | | | <u>ADM 1/5511</u> |
| 35. | <u>Committee upon the Higher Education of Naval Officers</u> (Shadwell Report) C203 (1870) | | p115 |
| 36. | J G Goodenough | 'The Preliminary Education of Naval Officers' | <u>Journal of the Royal United Services Institution</u>
15/64(1871)p342 |
| 37. | J Corbett | 'Naval Education' | <u>Monthly Review</u>
Sept 1902 p44/45 |
| 38. | F B Sullivan | op cit (1974) | p131 |
| 39. | | ibid | Preface |
| 40. | | ibid | p282 |
| 41. | | ibid | p131 |
| 42. | E P Statham | <u>The Story of the Britannia</u> (1904) | p36 |

Chapter One - Notes (continued)

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|-----|---|---|--|
| 43. | M Lewis | op cit (1965) | p186 |
| 44. | G Penn | <u>Snotty. The Story of the Midshipman</u> (1957) | p65 |
| 45. | S W C Pack | <u>Britannia at Dartmouth</u> (1966) | p28 |
| 46. | M Lewis | op cit (1965) | p186 |
| 47. | <u>Admiralty Library Search 198</u> | | p1 |
| 48. | <u>Manning of the Royal Navy. Report of a Committee of Naval Officers</u> (1852) | | p8 |
| 49. | | ibid | p8 |
| 50. | | ibid | p14 |
| 51. | | ibid | p14 |
| 52. | I D Cowan | 'Industrial Schools and Training Ships' | Hull MEd(1980)
p76/77/78 |
| 53. | | ibid | p80 |
| 54. | J Reddie | 'On Manning the Navy' | <u>Journal of the Royal United Services Institution</u>
(1867) p357 |
| 55. | | ibid | p357 |
| 56. | R Harris | op cit | p59 |
| 57. | | ibid | p59 |
| 58. | H Vansittart Neal to Tarleton Committee.
19 March 1872. Microfilm Section, Central Library,
Liverpool | | <u>Tarleton Papers</u>
Reel 5/10 MS 165 |
| 59. | | ibid | |
| 60. | R Harris | op cit | p34 |
| 61. | E P Statham | op cit | p39 |
| 62. | M Lewis | op cit (1965) | p110 |
| 63. | S W C Pack | op cit | p29 |
| 64. | G Penn | op cit | p66 |
| 65. | M Lewis | op cit(1965) | p108 |

Chapter One - Notes (continued)

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|-----|---|---|---|
| 66. | J Fisher | <u>Records</u> (1919) | p7 |
| 67. | J Moresby | <u>Two Admirals</u> (1909) | p87 |
| 68. | <u>Navy List</u> | (correct to 20 June 1848) | p195 |
| 69. | <u>Navy List</u> | (correct to 20 December 1849) | p209 |
| 70. | <u>Navy List</u> | (correct to 20 September 1851) | p212 |
| 71. | <u>Pamphlets and Miscellaneous Reports.</u>
VOL 3 No 712 | | Ministry of Defence
Main Library, London |
| 72. | Admiralty Circular 288 23 February 1857 | | <u>ADM 7/890</u> |
| 73. | ibid | | para I |
| 74. | ibid | | |
| 75. | ibid | | |
| 76. | <u>Naval Chronicle 1 Dec 1865</u> | | p134 |
| 77. | E P Statham | op cit | p49 |
| 78. | R Harris | op cit | p45 |
| 79. | ibid | | p44 |
| 80. | ibid | | p46 |
| 81. | <u>Navy List</u> | (correct to 20 March 1860) | p241 |
| 82. | This is confirmed by the testimony of the Duke of Somerset, First Lord of the Admiralty in this year, to the <u>Select Committee on Promotion and Retirement in the Royal Navy of 1863</u> , para 4942, p283. | | |
| 83. | <u>Select Committee on Promotion and Retirement in the Royal Navy (1863)</u> | | p vi. |
| 84. | ibid | | |
| 85. | C W D Beresford | <u>Memoirs of Lord Charles Beresford</u> (1914) | p6 |
| 86. | <u>Select Committee on Promotion and Retirement in the Royal Navy (1863)</u> | | p vi. |
| 87. | E P Statham | op cit | p53 |
| 88. | <u>Committee on The System of Training Cadets on Board HMS Britannia</u> (The Rice Report) C1154 (1875) | | para 2403 |
| 89. | ibid | | paras 2487/88 |

Chapter One - Notes (continued)

90. ibid para 2421
91. ibid para 2424
92. ibid para 2418
93. M Lewis op cit (1965) p112
94. Rice Report op cit para 2488
95. P H Columb A Memoir of Cooper Key (1898) p69
96. Rice Report op cit para 1830
97. R Harris op cit p34
98. Rice Report op cit para 1831
99. ibid
100. E P Statham op cit p40
101. Army and Navy Gazette 15 February 1862 p97/98
102. F B Sullivan op cit(1974) Intro to Ch 4.
103. Naval Chronicle January 1863 Index
104. N A M Rodger 'British Naval Thought and Naval Policy
1820-1890 in New Aspects of Naval History
ed. Symons (1981) p142
105. Army and Navy Gazette 3 November 1860 p755
106. ibid 24 November 1860 p809
107. ibid 29 December 1860 p887
108. The Broad Arrow 5 October 1878 pp434/435
109. Naval Chronicle 1 April 1870 p40
110. Army and Navy Gazette 8 February 1862 p89
111. ibid 22nd November 1862 p749
112. ibid
113. Naval Chronicle 1 October 1861 p110
114. ibid 1 January 1862 p3
115. ibid
116. ibid 1 April 1870 p40

Chapter One - Notes (continued)

117.	Select Committee	op cit (1863)	para xi p viii
118.		ibid	para2455
119.		ibid	para4530
120.		ibid	para4524
121.		ibid	para x,p viii
122.		ibid	
123.		ibid	para xviii,p xiv
124.	Rice Report	op cit	para1833
125.		ibid	para1829
126.		ibid	
127.		ibid	
128.	W L Clowes	<u>The Royal Navy. A History</u> Vol 7 (1903)	p12
129.	Select Committe	op cit (1863)	para 4942
130.	H W Dickinson	op cit	Ch.4
131.	F B Sullivan	op cit (1974)	p131
132.		ibid	Preface
133.	F B Sullivan	op cit (1976)	p320
134.	F B Sullivan	op cit (1974)	p282
135.		ibid	
136.		ibid	
137.	E P Statham	op cit	pp98/99
138.		ibid	
139.	F B Sullivan	op cit (1974)	p(x)

Chapter Two

The Origin and Development of Continuing and

Higher Education in the Royal Navy

to 1869

Abstract

While the concept of a formal higher education system in the Royal Navy did not emerge until the recommendations of the 1870 Shadwell Committee and the establishment of the Royal Naval College, Greenwich three years later, there was considerable educational activity in the Service beyond that conducted in the training ship.

Chapter Two examines the years 1857 to 1869 under two principal headings:

Continuing Education - the extent and efficiency of the education provided in sea going ships which every officer undertook for a period of at least four years, on discharge from the training ship until sitting the Lieutenant's examination.

Higher Education - the activities of the Royal Naval College, Portsmouth which after closure as an initial training establishment in 1837 was refounded two years later, to provide theoretical education in support of the Navy's professional training, and to offer experienced officers opportunities to pursue further study.

Continuing Education at Sea

Under regulations promulgated in Circular 288 of 23 February 1857, which came into force in May of the following year, on successful completion of time in the training ship Naval Cadets, by this time aged 14 or 15, were discharged for further education and training to the Fleet. As no officer could present himself for the Lieutenant's examination until the age of 19 this implied four or five years further study in the difficult and demanding surroundings of an operational warship where, according to availability and scheme of complement, there might or might not be a Naval Instructor borne. It is important to note that despite the advent of the training ship system and the uniformity and order it placed on entry and initial training, the vast majority of education prior to the Lieutenant's examination, continued to be conducted at sea. Even after 1859 when training ship time was extended to twelve months¹ and an attempt was made to commission a dedicated sea training ship, the young officer still spent at least four years at sea gaining the professional skills and scientific knowledge necessary to pass the final examination.

The operational fleet that the young Cadet joined on completion of his time in the training ship was remarkably varied in geographical location, type of ship and duties undertaken. Naval Cadets and Midshipmen were most liable, by scheme of complement, to serve in larger ships where there was an increased likelihood of the services of a Naval Instructor. While a capital ship, usually an

elderly wooden walled line of battleship converted to screw propulsion, would serve as a flagship on each foreign station, as a general rule big ships were based closer to home. The larger and more modern the vessel, the more likely she was, in the 1860s, to be deployed in response to perceived threats from France and Russia, in the Channel and Mediterranean Fleets. This was where the majority of young officers continued at least part of their shipboard education.

Such an appointment did not guarantee any commonality of experience. A draft to a capital ship in the Channel Fleet in 1863 for example would almost certainly imply service in an 'ironclad' - revolutionary new warships capable of 14 knots under steam power and protected by four and a half inch wrought iron, bolted to 18" thick teak. A comparable post in the Mediterranean in the same year would mean service in one of eight, screw converted, wooden walled men o' war - the earliest dating from 1827 - that by this stage had become vulnerable targets with limited useful employment. The last of these on this station HMS Victoria a 102 gun three decker, served as a flagship until 1867, her retention perhaps based on the one virtue of the three decker by this stage, namely the excellent accommodation provided for the Commander in Chief and his staff.²

As a Naval Cadet, Lord Charles Beresford was appointed to such a ship on completion of initial training in March 1861. HMS Marlborough was a wooden walled battleship carrying 121 guns which had been fitted with a

single screw engine in 1853. Despite this innovation she was firmly part of the 'old Navy' with a complement of 950, frequently overcrowded and with an overlong sick list due to poor habitability.³ She was fitted with a 24" hemp cable 'the same class of cable as that which was used in Nelson's time'⁴ and the use of the engine was not encouraged - the young Beresford noting that 'steam was never used except under dire necessity'.⁵ In the Marlborough the standard and times of sail drill and incidental evolutions were paramount - even at the expense of injury and death. In less than two years aboard, Beresford saw a number of men fall to their deaths from the yards, including his fellow officer under training, Midshipman Inman.⁶

In contrast, Midshipman Henry Murray joined HMS Warrior on commissioning in the Channel Fleet also in 1861. As a fighting ship she outperformed anything then afloat and with her superior speed, protection and long range guns could have destroyed any other warship in short order.⁷ She also represented a major contrast in general habitability and, while it has been noted that she was the inspiration rather than the realisation of advances in the seaman's environment,⁸ she did represent a step change. Innovations like the pioneering system of ventilation which drew air into the ship and then forced it through a system of trunking to the lower decks, or the provision of a drying room which encouraged sailors to keep their kit and themselves clean, were important advances. The existence of steam launches provided both convenience and

an important training facility for young officers and, as Lambert has pointed out, the routine of frequent boat drill allowed officers and men to achieve a degree of familiarity with each other that was vital if they were to act together effectively in wartime.⁹

The fighting efficiency and the environmental advances represented by the new construction must not be over exaggerated. Yet the fact that, even as late as 1870, it was possible for a young officer learning his profession to be serving in ships as different as the wooden walled Rodney laid down in 1827, or the new Audacious which had 10 x 9 inch guns and 8 inch armour plate, does serve to demonstrate the varying nature of the young officers experience, at this critical point in the technological evolution of the Service.

For Naval Cadets posted to distant waters the naval experience was even more diverse for, despite the fact that the 12 years from 1857 were characterised by a generally successful endeavour by both political parties to reduce the naval budget, the extent and variety of British naval operations was considerable. In 1859 for example more than 150 ships were deployed in non-European waters and were called upon to meet such a range of demands that the First Lord complained

The undeniable fact is that we are doing or endeavouring to do more than our force is sufficient for. It is fortunate that the world is not larger, for there is no other limit to the service of the fleets.¹⁰

The China and Far East station, even after the ending in 1860 of the second China war, was a major employer of ship and manpower absorbing over 40 vessels and in excess of 6000 men until 1869. The Civil War diverted ships and men on the North American station, and trade protection and anti slavery patrols ensured that the West Africa squadron remained active, with at least 15 ships and almost 2000 men involved throughout the period.

With the exception of the flagships, most of the craft involved on distant stations were relatively small, shallow draft gunboats and gun vessels designed to penetrate previously unnavigable rivers, creeks and inshore reefs. As small ships they were frequently under junior command with complements of officers and ratings seldom exceeding 100. While most young officers were appointed to larger ships, extensive periods were spent by Naval Cadets and Midshipmen on loan to smaller craft or ashore with expeditionary brigades. Such activities frequently involved a baptism of fire for young officers with a series of engagements in the 1860s including the Second China War, the Indian Mutiny, the Ti Ping Rebellion, the New Zealand War 1860-64 and operations against the coast of Japan which gave a lie to the idea of life in the Victorian navy as one long holiday.

Admiral Sir John Fisher, a future First Sea Lord, was one who first saw active service as a Midshipman at the Peilo forts in 1859. This disastrous affair which saw a total of 89 killed including Midshipman T H Herbert, and 345 wounded including Midshipman A J Powlett and G Armytage

left a deep impression on the young Fisher, who saw a man with his eye and part of his face burnt away as the British attack failed.¹¹ Yet such horrors were not untypical. Nine Midshipmen and Naval Cadets served with the Naval Brigade at Lucknow in 1857, of which the Commanding Officer wrote

Since the battle was fought, with the exception of one day's rest for the footsore men who have marched seventy two miles in three days besides fighting a severe engagement we have had daily marches...¹²

In this action Midshipman M A Daniel was killed and Naval Cadet Lascelles, then aged 15, performed distinguished service. Throughout the Official History of the various colonial campaigns of the 1850s and 60s, the names of Midshipmen and Naval Cadets feature prominently.

Thus many Midshipmen arriving home, post fleet time, to prepare for the Lieutenant's examination were seniors of considerable active service. While they had seen no general fleet action their experiences as members of a world-wide maritime police force had exposed them to death and injury from both disease and the enemy. Indeed it has been estimated that even in the second half of the nineteenth century the Royal Navy sustained a higher 'all causes' death rate than during the First World War.¹³ Even where sea time had been spent in European waters or where the climate in a foreign flagship had been more temperate, the Midshipman's experience was remarkably diverse and the conditions under which they acquired their professional expertise were often radically different. From the

Mediterranean to the China Fleet, in wooden walled men o' war or armour plated battleships, from active service in pursuit of pirates to high spirits in the gunrooms of the Channel squadron, Naval Cadets and Midshipmen were required to continue their education until, via the shoreside Lieutenant's examination they joined the trained strength of the Service.

Some recognition of this difficulty and diversity appeared in Circular 288, where 15 of the 23 paragraphs applied to the conduct of training and education post training ship, and where considerable emphasis was placed on correct procedure and close supervision. The regulations included instructions to Commanding Officers who were required 'to take care that a convenient place is set apart and proper hours are fixed for instruction',¹⁴ and to ensure that 'a Monthly Examination Day is to be established'.¹⁵ Additionally they were required to allow Naval Instructors 'reasonable access to the charts and chronometers for the purposes of instructing officers in their use'.¹⁶ For their part, in addition to studies, the young officers were required 'to keep a book in which the ship's reckoning is to be worked and noted and when they are at sea, this book is to be sent in every day to the Captain.'¹⁷

Under Circular 288 the period of sea borne education was divided into three phases, the first of which required a minimum time in the Service as a Cadet of 18 months and the successful completion of the examination specified in paragraph (x) of the Circular. This demanded a knowledge

of elementary seamanship - steering and managing a boat under oars and sail, knotting and splicing, rigging and the use of a lead line. A general appreciation of naval gunnery was also required. For subjects within the Naval Instructor's remit, the Cadet was to show that he had maintained his knowledge of all he had learnt in the training ship, that he was competent in both coastal and astro-navigation and that he could produce the usual certificates of good conduct. Having satisfied these requirements he could then be promoted Midshipman.

The second hurdle occurred after 18 months in this rank when it was necessary to pass a more advanced 'intermediate' examination, which was again a blend of practical seamanship, navigation, chart work and nautical surveying. By this time the young officer was expected to show proficiency in French and, if he had served in a steam vessel, required to demonstrate 'an acquaintance with different parts and workings of the Steam Engine'.¹⁸ Success in this examination was a pre-requisite for a further minimum two years service and then, only if he was 19 or older, could he present himself for the Lieutenant's examination held jointly at the Royal Naval College Portsmouth and on board the gunnery training ship HMS Excellent.

It will be noted that compared to even a few years previously there was now, in theory, a well regulated pattern of educational progress for the young officer to follow. The degree of supervision and control stipulated in the Circular was also increased. The two examinations

conducted at sea for example were to be supervised by the officer in command, not below the rank of Commander and the next Senior Officer in the Ship and the Examination in Navigation in the presence of a Captain or Commander, by two Naval Instructors when it may be practicable, or by a Naval Instructor and a Master, or where there is no Naval Instructor or by two Masters.¹⁹

Furthermore the candidate was to be the subject of continual monitoring with the directive that 'a report of the progress he has made in each of the above subjects is to be made to the Secretary of the Admiralty in the Half-yearly return'.²⁰ Supervising officers were cautioned to be 'most strict in their investigation of the qualifications of Officers'.²¹

An attempt to extend the degree of supervision and control appeared in Admiralty Circular 393 of 23rd November 1859 which directed that in future the period in the training ship would be made equal for all - namely 12 months exclusive of vacations. This Circular also announced that 'on leaving the Harbour training ship it is intended that the Cadet shall pass three months in a Seagoing training ship for practical instruction'.²² It has been established that, while the ship designated for sea training, HMS Eurydice, was moored alongside the harbour training ship and some static instruction took place aboard, she was not employed at sea due to financial stringency.²³ Nevertheless the extension of training time to 12 months and an attempt to provide a specialist

environment aboard a designated sea going ship, clearly demonstrated an increased sense of purpose and direction towards young officers' education and training.

Apart from minor modifications to the regulations for entry and initial examination of Naval Cadets in February 1865,²⁴ the general pattern of education at sea remained almost unchanged until the end of the decade. In 1868 the longstanding attempt to commission a sea-training ship was achieved, with HMS Bristol a steam screw frigate designated for the purpose in the February of that year.

It will be noted that by 1859 a quite distinct pattern of training had emerged for the young officer. After successful completion of 12 months study in the harbour training ship his time in the fleet was characterised by two further hurdles - the examination necessary to enable him to be rated Midshipman, and a further intermediate assessment after 18 months, which noted his progress towards the shoreside Lieutenant's examination. It has also been shown that the conditions under which such study was undertaken were both difficult and demanding and at this particular point in the evolution of the Service, subject to considerable variance according to class of ship, geographical location and duties undertaken.

The Provision of Naval Instructors

While the 1857 and 1859 regulations responded to these difficulties by stipulating close supervision and monitoring of young officers by naval staff, perhaps the most important factor in the process was the extent and

quality of Naval Instructors serving the fleet of the period. It has been shown²⁵ that in the two decades prior to 1857 provision was inadequate with many ships in commission without Naval Instructors and a subsequent neglect of the education of young officers. While the introduction of the harbour training ship was in part a reaction to this situation and one that undoubtedly put the initial entry and education of Naval Cadets on a much sounder footing, the bulk of the educational process prior to the Lieutenant's examination remained in the hands of the Naval Instructor, serving at sea. A detailed consideration of the Naval Instructor branch up to 1870 is thus a vital component in any assessment of the officer education process in these years.

The regulations and duties applying to the Naval Instructor in 1857 had been established in general terms 13 years previously in Queens Regulations and Admiralty Instructions, but in the year this study commences the most recent detailed amendments were derived from an Admiralty minute of 10th September 1849. To enter the Service as a Naval Instructor candidates had to be aged between 20 and 35 years, be able to produce testimonials of good character and show themselves competent in an examination held jointly at the Royal Naval College Portsmouth and in the gunnery training ship HMS Excellent. This comprised

- 1st. The usual College passing examination in Navigation. -
- 2nd. The application of the theory of Projectiles to Gunnery -
- 3rd. Observations with the Sextant. The use of

the Azimuth Compass and Chronometer etc.
Perfect proficiency will be expected in
observing:...²⁶

Although a knowledge of French, other modern languages and drawing was not compulsory, it was considered 'very desirable that Naval Instructors should be able to give instruction in these branches of Education',²⁷ and preference was to be given to candidates with these attainments.

Once qualified and aboard his ship, the Naval Instructor's duties were

to execute punctually and zealously all directions he may receive from the Captain or other superior officer, relative to the education of the subordinate Officers or others placed under tuition. He is to exert his best efforts to instruct and advance the several pupils placed with him in the several branches of sciences stated in Art 29 Sec 1 Chap 11 page 27 of these regulations. He is also to superintend the conduct and behaviour of his pupils while under his instruction and he is to be careful to check and remove any improper conduct or experiences of any of them and if not amended, he is to report the same to the Captain or Commanding Officer.²⁸

In terms of the syllabus the Instructor was only required to teach the subjects that he had passed in his entrance examination for the Service, namely:

- 1st. Common Arithmetic, including Vulgar and Decimal Fractions.
- 2nd. The first six and the eleventh books of Euclid.
- 3rd. Algebra, progressing to the highest order of Equations and its application to the solution

of Geometrical Problems.

4th. Plane and Spherical Trigonometry, theoretical and practical.

5th Nautical Astronomy, particularly the principles on which the various rules for finding the Latitude and Longitude are founded.

6th. Mechanics

7th Hydrostatics

8th A competent knowledge of the Classics.²⁹

However, it will be noted that the nature of the syllabus for Cadets and Midshipmen in seagoing warships outlined in Circular 288 of 1857 was more extensive than this remit. While some assistance, particularly in navigation, might be expected from the ship's officers, Naval Instructors were clearly required to work at a more advanced level than that implied in the 1844 regulations.

Pay had last been subject to major review in August 1840 when an Order in Council had noted 'difficulty in providing Your Majesty's Ships with competent Instructors',³⁰ at the rates of pay established two years previously. As a result under these regulations pay was increased with Naval Instructors receiving between 7.0s and 10s per day according to their length of service. The long established bounty which stood at £30 per annum was discontinued for the Naval Instructor, but the Chaplain could continue to draw the sum if he undertook the Naval Instructors role in addition to his other duties. This was in turn abolished in 1842³¹ and his new remuneration was to be, in addition to the Chaplain's pay, a sum of £5 per annum per pupil, plus three quarters of the

Instructor's pay. Apart from minor improvements to the half pay rates of Naval Instructors made in January 1856,³² these were the qualifications, duties and remuneration rates applying to Naval Instructors in the year this study opens.

There are two principal observations to be made about the position of the Naval Instructor at this time. The first is to note that while he was a member of the Civil Branch of the Royal Navy together with the Surgeon, Purser and the Chaplain, and although since the inception of the new rank in 1837 he had been a Wardroom member, unlike his fellows he was appointed not 'by Commission' but 'by Warrant'. The practical implications of this amounted to little more than a slight distinction within the ship hierarchy, yet it is nevertheless surprising. The Admiralty had set out quite deliberately to attract men of high attainment, who would mess in the Wardroom and whose original payment-by-bounty was abolished in favour of a salary. The Surgeon, Purser and Chaplain had received commissioned status in 1843³³ and a high proportion of Chaplains also served as Naval Instructors. Yet laymen serving in the Instructor branch had to wait a further 18 years before they too received their appointments 'by Commission'.

Lewis attributes this fine distinction to Admiralty conservatism towards the Naval Instructor, a relatively recent creation, who only a few years previously in the guise of 'the ship schoolmaster' had been slinging his hammock on the orlop deck.³⁴ While there is substance to this argument there is also some evidence to suggest a

deliberate policy on the part of the authorities to encourage Chaplains to fill the ranks of Naval Instructors, at the expense of laymen. Not only were Chaplains 'commissioned' as opposed to 'warranted' but they were remarkably well paid - their own pay plus a further three quarters of the Instructors' rate, if they were prepared to combine both posts. An Order in Council of 1842 noted

it would be attended with much benefit to Your Majesty's Service if greater encouragement were held out to the Chaplains of Your Majesty's Ships when properly qualified to undertake the tuition of young gentlemen³⁵

To facilitate this a later Circular authorised special arrangements for Chaplains on foreign stations to take on the role of Naval Instructor on a 'local acting' basis.³⁶ By uniting the two roles the Admiralty clearly felt they were getting men of good moral and religious tone and it was argued that 'a small saving of expense may be expected to result therefrom'.³⁷

Two important advances in status were introduced in the period up to 1869. In April 1861 the long standing disparity between the Chaplain and the Naval Instructor was removed when the latter was appointed 'by Commission'³⁸ - the number of Chaplains serving in the dual role was so extensive that any difference in status was rendered meaningless. A further advance took place in July 1864 when an Order in Council³⁹ (subsequently published as Circular Number 41W of 22nd October 1864) decreed that Naval Instructors were to advance in rank according to

their seniority. Thus instead of receiving pay based solely on length of service, Naval Instructors were now matched against other officers ie Instructors having less than eight years seniority would rank with Lieutenants of the same vintage, Naval Instructors holding more than 15 years service would rank with Commanders etc.

Despite Sullivan's observation that 'oddly enough shortly before the Naval Instructor gained commissioned rank he was given the option of wearing uniform or not',⁴⁰ there were in fact no amendments to the regulations at this time, for the uniform requirement for the Naval Instructor had already been through a number of changes. Although the rank had been introduced in May 1837, no mention of the Naval Instructor appeared in the Dress Regulations of the Navy List until 20 June 1842 when they were required to wear 'the same as Masters but without epaulettes or lace to the trousers'.⁴¹ This continued until 20 March 1846 when they were required to wear 'the same as Secretaries to Junior Flag Officers except that the buttons on the breast of the coat are to be regular and without epaulettes or lace to the trousers'.⁴² This became the standard uniform and was still extant in 1861 with the caveat that from April 1848⁴³ the wearing of all uniforms for Naval Instructors had become optional. Thus, contrary to Sullivan's assertion, the onset of commissioned rank had no relation to modifications in uniform regulations, which had remained unchanged for 13 years prior to 1861.

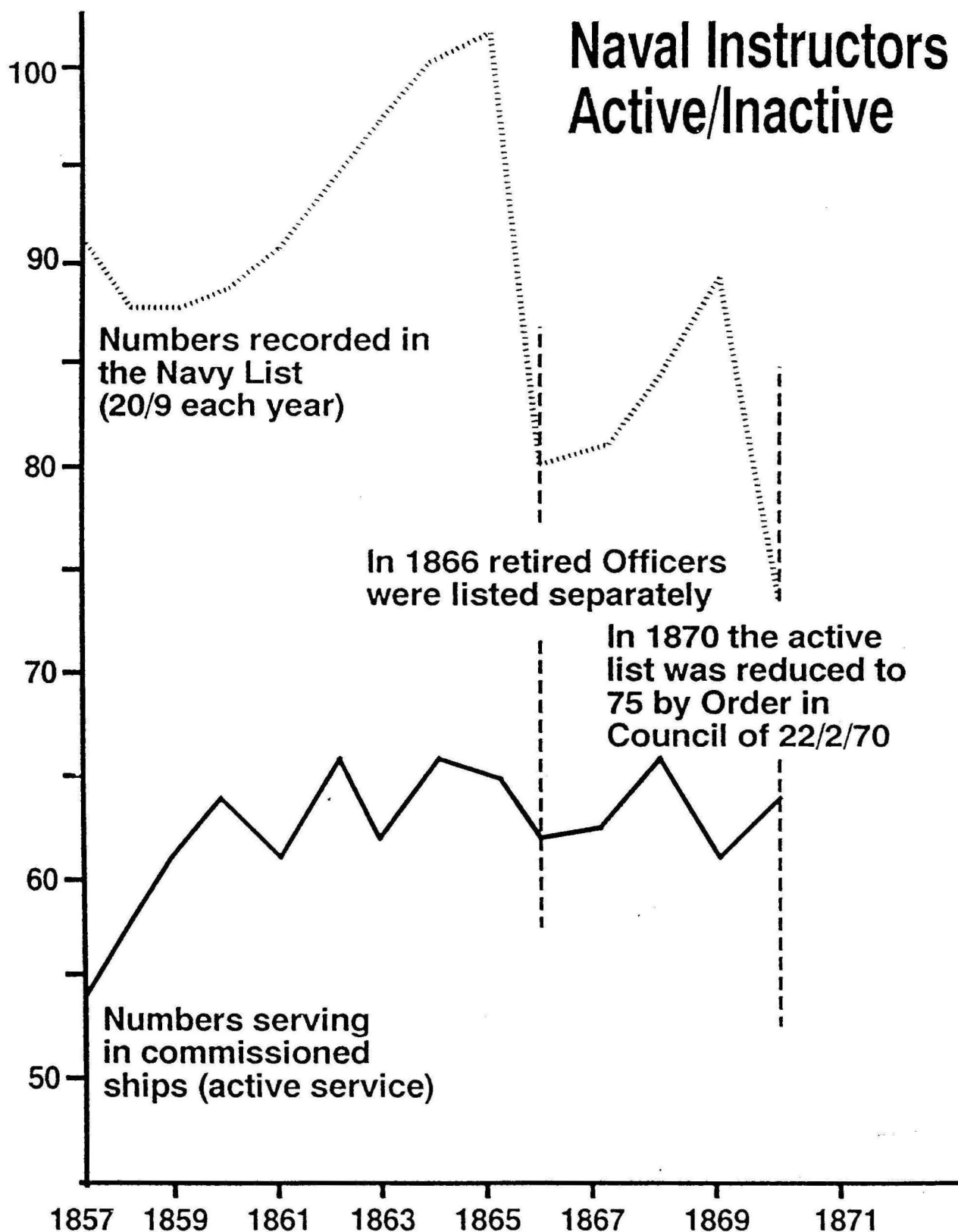
Clearly any assessment of the efficiency of the system of education at sea must start by examining the

numbers of Naval Instructors serving in the Fleet from 1857. Little previous work has been undertaken in this area, although Sullivan has looked at specific years up to 1864 and concluded that the manpower situation was buoyant, noting that 'the numbers of serving Naval Instructors steadily increased and the Admiralty's aim of attracting better candidates with superior academic qualifications was gradually achieved'.⁴⁴ In 1856 he cites 96 Naval Instructors serving and notes that five years later the total was 91.⁴⁵ By 1864 Sullivan sees the Navy's long standing recruitment problem in this field as being solved, observing that

In the past, the Admiralty had often paid lip service to the need for attracting well qualified men to enlist as naval educators. By 1864 glib sentiments had at last been translated into action.⁴⁶

Although he does not offer any further statistics, on the basis of those already quoted and the evidence of an Order in Council of 1870 which reduced the active list of Naval Instructors to 75⁴⁷, Sullivan concludes that by this time the recruiting problem had been solved.⁴⁸

The reality, however, is rather different for there are important shortcomings in both Sullivan's use of statistics and his understanding of the relevant 1870 Order in Council. Statistically Sullivan fails to appreciate that until 1866 the names of all Naval Instructors, including those who had retired, appeared in the same list. Thus, the numbers grew steadily to a highpoint of 103 in 1865, not because the recruitment problem was being solved, but because as time went on the



number of retired officers increased. Only after this date does the number reflect those actually active. Perhaps more significant is his failure to appreciate that only a proportion of active personnel were in turn actually employed. It is only when the numbers in this category, ie those on the active list currently employed in operational warships are considered, that an accurate picture of the efficiency of education at sea can be gained.

When these two factors are applied, a considerable disparity between the nominal total of Naval Instructors and those actually undertaking the task emerges (See opposite.) Here it will be seen that Sullivan's figures have been artificially boosted by numbers of retired and 'serving but not employed' officers, to the extent that his 1861 figure of 91 is inflated by one third. The most dramatic evidence appears five years later when the decision to account for retired staff separately resulted in a dramatic fall in the nominal figure, while the 'active and employed' list had only a slight fluctuation. Similarly the decision in 1870 to restrict the Naval Instructor list to 75 once again caused the nominal list to plummet, while the 'active and employed' number actually increased.

This was precisely what the 1870 Order in Council was designed to achieve. While Sullivan gives the impression that the directive was a specific response to the manning of the Instructor Branch, it was in fact a wider and more

comprehensive document pertaining to many branches of the Service including 'Navigating Officers, Inspectors of Machinery and Chief Engineers, Chaplains and Naval Instructors, Medical Officers, Paymasters and Assistant Paymasters'.⁴⁹ A product of the radical economy imposed by the administration of the First Lord H C E Childers⁵⁰ the order was not a response to over-recruitment, but rather a measure to improve efficiency by introducing a comprehensive system of retirement. Table 2/1 shows that in the Naval Instructor branch it had exactly that effect. When the directive came into effect on 1 April 1870 the nominal figure of those borne on the active list dropped from 88 to 72 while the numbers who were 'active and employed' increased from 61 to 64.

Table 2/1 shows that the number of Naval Instructors 'active and employed' in the period 1857-1870 was much more modest than the overall Sullivan figure, and contemporary comment supports this, suggesting that great difficulty was experienced in filling the number of Naval Instructor billets. In 1860, for example, although there were nominally 89 men serving, only 64 were actually borne in commissioned ships.⁵¹ This attracted the attention of the Army and Navy Gazette which, while praising the efforts to regulate entry and initial education via the establishment of a training ship, noted the lack of sustained educational provision arguing

will anyone pretend to say that six or twelve months preparatory work on board the Britannia is sufficient training to afford to our young officers such a store of knowledge as will enable

them to play their part with credit, as the future defenders of this mighty empire?⁵²

It was not the want of a system of further education that was lacking argued the Gazette, but rather the means of manning it with a suitable number of Naval Instructors who could 'supply the junior officers of the fleet with adequate means to obtain the prescribed standard of information'.⁵³

The special value of this leading article was that it then proceeded to identify warships in commission that year, which by Admiralty regulation should be carrying Naval Instructors and were not. The paper revealed that

Four of these ships are flag-ships, viz HMS Edgar flagship of Admiral Erskine; Bacchante, Sir J Maitland CB; Forte, Sir H Keppel KCB: Arrogant Commodore Edmonstone.

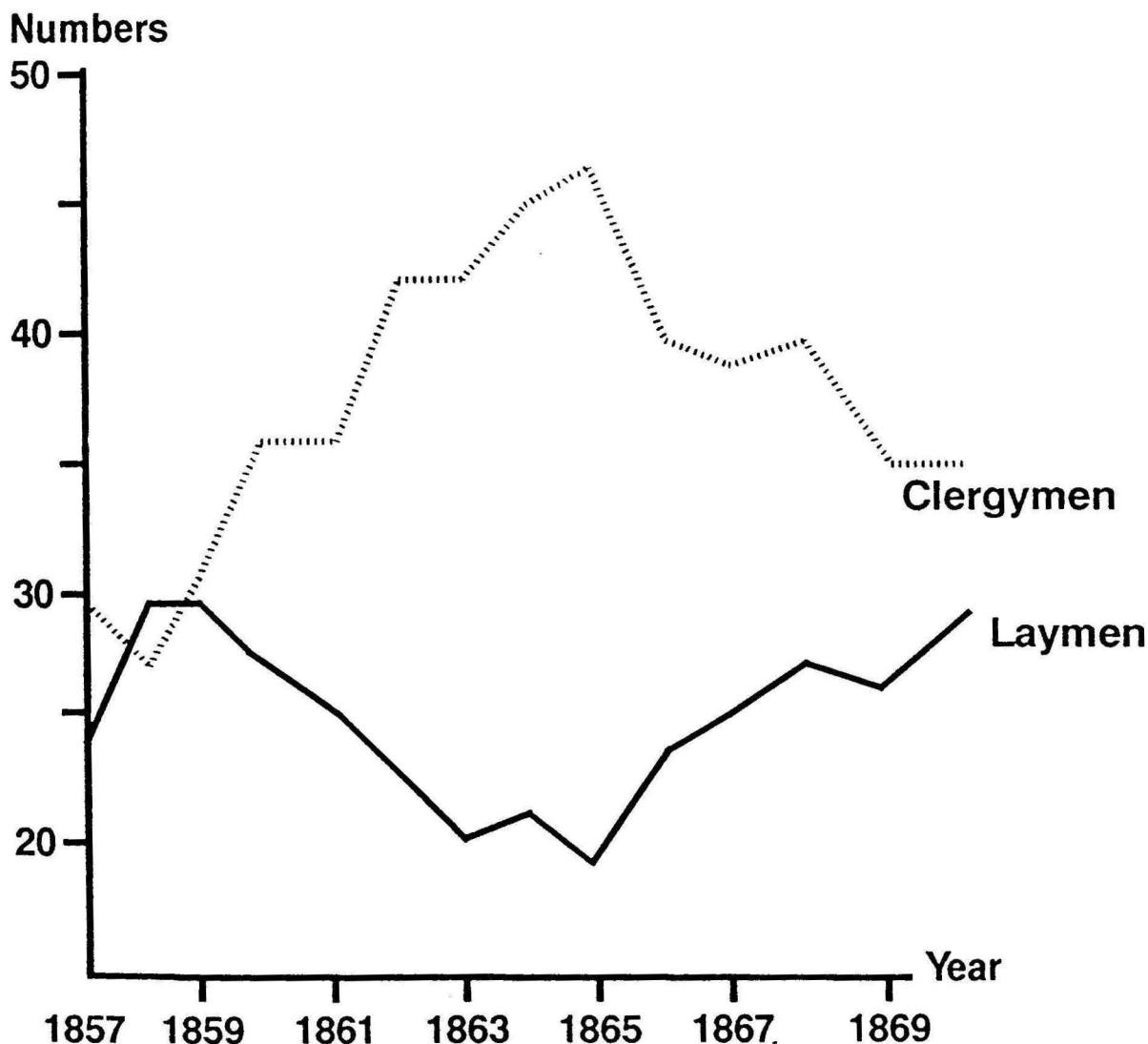
Eight of the ships were line-of-battle ships, each bearing an average number of twenty young officers, viz, acting mates, acting second masters, midshipmen, cadets and master's assistant, all supposed to be under the tuition of the naval instructor.

The fourteen other vessels are frigates and smaller ships bearing each an average of ten subordinate officers also supposed to be under daily instruction. Altogether 300 junior officers are at this moment deprived of the instruction the Admiralty are by their own regulations bound to supply them with.⁵⁴

Such a state of affairs, argued the writer, demanded an inquiry and could not 'last much longer without seriously impairing the efficiency of a gallant profession.'⁵⁵ In fact 1860 was not an untypical year, and the figure of 64 Naval Instructors 'active and employed' was slightly higher than the average figure for the period and was only ever

Naval Instructors 1857 -1870

"Active and Employed" Clergy V Laymen
(correct to 20/9 in each year)



exceeded by two in any one year from 1857 to 1870.

Together with a steady and sustained increase in the number of Naval Instructors, Sullivan also envisages an improvement in quality, noting that by 1864 'a genuinely professional corps of naval educators had been established' consisting of men 'of superior social and academic standing', and that this had been prompted by the technological advances made in the Service.⁵⁶ Yet in fact once again close analysis of the Navy List statistics shows quite the opposite, with recruitment patterns in the 1860s demonstrating the success of the Admiralty policy, not of attracting specialists but rather of attempting to combine the posts of Chaplain and Naval Instructor in the one person. This was remarkably successful. If the most meaningful statistics ie. 'active and employed' are adopted, it will be noted that from 1858 the number of Chaplains grew steadily, exceeding laymen in 1859 and accounting for all the 10 Naval Instructors with a seniority of 1860. At the zenith five years later, there were 46 clergy and just 19 laymen actually employed in commissioned ships. While the latter figure slowly increased, at no stage between 1859 and 1870 was the Chaplain's majority threatened. See Table 2/2 opposite.

This recruitment pattern hardly accorded with the creation of a band of professional educators reflecting the technological realities of the day. While the Chaplains were all university educated, it is hard to see how they represented an improvement in the system, prompted by technological advance. Indeed quite the opposite may have

been true for there is some evidence to suggest that even the modest task of instructing young officers in accordance with the requirements of Circulars 288 and 393 was less than adequately handled. The Revd J B Harbord, Chaplain and Naval Instructor, informed the Shadwell Committee that as a consequence of insufficient training

Naval Instructors go to their duty dependent, in a great measure, on their own pupils. At the College they never have taken any "sights" at sea. They do not know the use of the sextant for the purpose of taking sea observations when they go afloat. Some of them have never seen a chart; most of them have not seen a theodolite, or, if they have they are entirely ignorant as to its practical use.⁵⁷

This view was endorsed by Rear Admiral A P Ryder who noted that

the small progress made by the subordinate officers in many of the ships is owing to this ignorance of the art of teaching and examining on the part of Naval Instructors⁵⁸

Naval Instructor Charles R Tompkins agreed that it was almost certainly the case

that when on board ship, though young officers are taught by Naval Instructors they are found at every succeeding six monthly examination to know less and less.⁵⁹

and the Revd Thomas J Main testified that Cadets and Midshipmen 'will make better officers without a Naval Instructor than with one'⁶⁰

In fact, the evidence offered on the system of tuition on board ship, the majority of which came from serving Naval Instructors, was overwhelmingly condemnatory.

Apart from poor standards of professionalism in the Naval Instructor branch the report cites frequently unfilled billets, minimal periods allocated for the Naval Instructor's work, numerous interruptions to the Cadet's and Midshipmen's studies and general evidence of a system which 'is very imperfect and does little if anything towards keeping up, still less extending the knowledge of young naval officers'.⁶¹

For the Shadwell Committee such evidence could only lead to one recommendation. In Section Nine of the Report it was concluded that

Under these circumstances it becomes a matter of grave consideration whether the benefit obtained by the service from the employment of Naval Instructors in sea going ships, is at all commensurate with their cost to the country.

The Committee therefore venture to lay before their Lordships the expression of their opinion, that the aid of Naval Instructors on board sea going ships might be generally dispensed with...⁶²

As an alternative the Committee wished to extend the time that young officers spent in the training ship, where more stability and continuity could be applied to their studies, with the overall aim of dispensing with education in operational warships completely.⁶³

The evidence of an ineffective Instructor branch characterised by low numbers, poor standards and a recommendation for their abolition is completely at odds with Sullivan's version of events. However, it will be noted that his statistical evidence lacks the necessary discrimination to give any form of accurate picture and his

confusion over the 1870 Order in Council designed to dispose of non-employed Instructors, rather than limit recruitment to the active list, leads him to a fundamentally flawed conclusion. The fact that, despite extensive use of Shadwell throughout his work, he fails to mention its recommendation to abolish the branch, is inexplicable.

The overall picture of continuing education at sea 1857-69 is characterised by a series of contrasts. There can be little doubt that, having imposed a degree of order on the initial entry and education of young officers via the establishment of a training ship, the Admiralty attempted to extend this process to the lengthy period spent at sea prior to the Lieutenant's examination. The extensive requirements of Circulars 288/393, both in terms of monitoring progress via examinations and reports, and the demand for careful supervision by ships' officers, are evidence of a clear sense of purpose that stands in marked contrast to the 'ad hoc' arrangements prior to 1857. The extension in 1859 of the training ship time to 12 months and the initially unsuccessful attempt to designate a sea training ship for particular service, were also a recognition of the requirement for a specialist training environment.

Some progress in the pay, conditions and status of the Naval Instructor branch may also be noted although the familiar theme of inadequate provision, mediocre professional standards and attempts to economise by

combining the post of Chaplain and Naval Instructor persisted. While these factors led to a recommendation that the Naval Instructor branch should be abolished, it is important to stress that this measure was conditional on extending the length of time the Naval Cadet spent in the training ship.

In some ways this was the key to understanding a period in which progress was more apparent than real. The overwhelming fact was that the environment of an operational warship with the intermittent services of a Naval Instructor of questionable expertise, often in distant waters and on active service, was not conducive to successful further study. Until an extended period of study in a more stable environment could be provided, there were clear limits to the extent that the system could be improved. Thus despite a recognisable effort on the part of the Admiralty to improve standards, many of the advantages gained in the training ship, were squandered in the difficult and demanding period that Naval Cadets and Midshipmen spent at sea.

The Origin and Development of the Royal Naval College Portsmouth to 1857

While reference to the Royal Naval College Portsmouth appears sporadically in both the development of the training ship system and the progress of continuing education at sea, it must be appreciated that by 1857 the institution had already seen three quite separate and distinct incarnations. It had been founded originally in 1729 as a Naval Academy for the 'better education of forty

young gentlemen to be trained up for your majesty's service at sea',⁶⁴ and took its first pupils in 1733. Despite the impeccable background of the pupils 'young gentlemen, sons of noblemen and gentlemen', that it was willing to accept, the early progress of the institution was not a happy one. Considerable difficulties were experienced in maintaining discipline and offences such as breaking bounds and drunkenness were common. The result was a poor reputation and falling numbers of pupils to the extent that by 1801 the First Lord of the Admiralty asked a prospective parent 'Are you so partial to that Academy as to hazard a son there?'⁶⁵ This high level discontent was supported by other senior officers, and the Royal Academy was closed in 1806.

It was reconstituted as the Royal Naval College, a larger and improved establishment on the same site, in February 1808 and this time quickly gained a reputation for excellence due, suggests Lewis, to the improving presence of its principal James Inman, distinguished Cambridge scholar and Senior Wrangler in 1800. He was the author of Inmans Tables, still in use as a navigation aid to the present day, and a number of learned texts on gunnery and ship construction. It has been noted that Inman was 'consulted by the naval and other authorities upon almost every conceivable subject which could be included under the head of mathematics, not excepting designs of ships, sail plans etc,'⁶⁶ and under his guidance the establishment prospered. The percentage of the overall officer entry trained there gradually increased from about 3% in 1808 to

11% by 1837, although it is doubtful whether its capacity for 70 pupils was ever filled.⁶⁷

To compensate for this, College activities were gradually expanded into other areas. While it remained first and foremost an establishment devoted to the initial education of young officers, from 1822 it accepted older students. In that year an Order in Council recommended that candidates for posts as Naval Instructors should be examined not as previously at Trinity House, but before the Lieutenant Governor and Professor of the Royal Naval College.⁶⁸ In January 1829 it accepted commissioned officers on half pay who wished to study, and their number rose rapidly from 24 to 36 by June 1830, with an extra master recruited to assist students with their studies.⁶⁹

The Royal Naval College also became the focus for academic support to the technical training that emerged in the first three decades of the nineteenth century. Prior to this the routine of even central functions of the fighting ship, in particular gunnery, were felt to be a matter for each individual Captain. This lack of coordination eventually led to degrees of inefficiency that no amount of courageous conduct could disguise, and was noted in the American War of 1812, after which the Admiralty concluded that Captains 'appear to have omitted to exercise their crews at the great guns and in the use of small arms as frequently as this part of their duty requires'.⁷⁰ In the same year Colonel Sir Howard Douglas

wrote a pamphlet urging that

Naval gunnery should have its permanent instructors and store of trained men... These depots would become the resorts of zeal and talents; vast numbers of young naval officers would resort thither at their own expense⁷¹

This demand for formal training was taken up by other officers including Sir John Pechell and Captain W L Bowles, and eventually in 1830 the Admiralty was persuaded to establish a gunnery school on board HMS Excellent moored in Portsmouth harbour.

While this school was conceived out of a desire for uniform standards and as a means of producing professional specialist officers, it nevertheless had a strong educational dimension from the very beginning. Mathematics, mechanical drawing, fortification and even 'steam' appeared in the early curriculum and from its inception the school taught theory as well as practice. This caused initial difficulties for many of the officer students for, as Harris commented, there was 'an utter want of mathematical knowledge possessed by all save the few who had been collegians'.⁷² Close links were immediately established with the Royal Naval College and its Professor, James Inman. College students carried out target practice organised by HMS Excellent and in 1828 Inman published a textbook on gunnery to be used in the school. This close connection was essential, suggested Harris, for the gunnery establishment served to provide a sort of substitute educational experience for the vast majority of naval officers who had experienced no previous formal training.

'The long course' he noted 'which a gunnery officer had to go through went to make up for the neglect of his earlier education'.⁷³

A similar implied need for higher education was derived from a recognition of the importance of naval architecture which, like gunnery, witnessed a new sense of discipline and organisation in the first three decades of the nineteenth century. In 1791 a Society for the Improvement of Naval Architecture had been established in London which produced papers, held meetings and proposed to carry out its own experimental work. Several naval officers were members and, although the Society ceased about 1799, it was an important influence on the government's decision to set up a commission 'to enquire into and revise the civil affairs of the Admiralty'.⁷⁴ This Committee of Revision, which produced a series of reports between 1803 and 1808, expressed a deep concern over the low standard of education of dockyard officers and feared that this standard might fall further. Among a number of recommendations, they proposed the founding of a School of Architecture in Portsmouth Dockyard which would teach a seven year course to shipwright apprentices, who would enter the School via a competitive examination.

The establishment was founded by an Order in Council of 1810 and the first course commenced on 1 January 1811.⁷⁵ While there were no naval officers amongst the first students, the classes were held in the buildings of the Royal Naval College. The director of academic studies, with the title 'President of the School of Architecture' was

again James Inman. Not content with writing text books for the gunnery school he also translated works on naval architecture from Swedish and French for use by the shipwright students. As with the study of gunnery, the nature of naval architecture implied the need for a broader education - the lack of satisfactory text books for example meant that students had to study French so that foreign texts might be used - although in 1819 a Select Committee recommended that this should be discontinued on the grounds that students might be poached by foreign governments.⁷⁶ The School moved into its own buildings in 1817 but maintained its links with the College, Inman remained its President, and in 1829 a limited number of commissioned naval officers were permitted to study there.⁷⁷

Despite a decline in numbers after 1817 the School of Architecture produced some distinguished students. Macleod makes the point that the school's products must be distinguished from the ordinary run of apprentices and there was 'a complete separation between the trade of shipwright and the profession of naval architect'.⁷⁸ The School, with its close connections with the Royal Naval College, was producing both an officer class of dockyard official and exposing a limited number of naval officers to excellence in technical education. Brown has suggested that graduates of the School such as Thomas Lloyd, Engineer in Chief of the Navy, Isaac Watts designer of the first ironclad HMS Warrior and Joseph Large, vice president of the Institute of Naval Architects were to 'dominate the technical scene in the Admiralty during the 1850s'.⁷⁹

It will be noted that there were separate strands to the developmental pattern of higher education in the Service. Two were provided by the respective schools of Architecture and Gunnery via their close connections with the Royal Naval College. The third was derived from widening the activities of the College itself and its involvement in the teaching and examination of officers already serving. Given the promising start to higher educational provision in the Service it was unfortunate that the years 1832-37 witnessed a concerted attempt by both naval and Civil Lords of the Admiralty to 'nip in the bud' such initiatives. These years were characterised principally by economic stringency in naval affairs. The two major administrations of the era those of Sir James Graham and the Earl of Minto, were notable for a vigorous examination of the naval estimates and, as Briggs comments, 'nothing was heard of but proposals for reduction of establishments and the diminution of expenditure'.⁸⁰ The School of Architecture and the Royal Naval College, both of which were subject to declining roles in the late 1820s, were thus subject to stringent economic review and despite some complaint within the Service, the economising zeal, particularly of Graham, received widespread approval in the press and the country.

Perhaps of more importance, particularly for the later development of higher education in the Navy, was the degree of hostility to these institutions detectable during the period. It has been shown that there was considerable social prejudice against the Royal Naval College and its

products, such that many officers sought to disclaim entry into the Navy via the College for fear that it would adversely affect their careers.⁸¹ Brown suggests that there was a similar feeling towards the School of Architecture which came partly from existing dockyard officers who were being displaced by graduates of the School, and partly from naval officers noted in this period for a preoccupation with status and a fixation with 'gentlemanly qualities'.⁸² The Morning Post published letters attacking the personal backgrounds of the students with 'Captain Marriot the novelist being particularly offensive'.⁸³

The third factor, and certainly the most significant dimension in the period, was the widespread distrust of scientific method in naval affairs. This in turn seems to have stemmed from two sources. There was the well documented distrust based on ignorance and reaction as the Navy attempted to come to terms with the technological changes taking place.⁸⁴ But of more importance was the seemingly genuine belief that somehow scientific method was incompatible with practical training and that the former was achieving an unacceptable prominence. Indeed some 30 years after the demise of the School of Architecture Sir James Graham, who had been responsible for its closure, admitted as much. In evidence to the Royal Commission on the Control and Management of the Dockyards he noted of this period that he had been 'afraid that there was too much of science and too little of practical knowledge creeping into the Navy'.⁸⁵

Thus in 1832 the School of Architecture was closed and a decision was taken to revert to the old system of entering only one class of apprentice into dockyard training. A similar 'uniform' system of education for naval officers was achieved by the closure of the Royal Naval College in April 1837 and the subsequent pursuit of education at sea for all young officers - an alternative which has been shown to be both chaotic and utterly inefficient.⁸⁶ The third pillar of higher education in the Service, the gunnery school at HMS Excellent also came under attack, most notably during the 1834-35 administration of the Earl de Gray, when naval lords Sir John P Beresford and Sir Charles Rowley petitioned to have the ship paid off.⁸⁷ This attempt failed, for despite contemporary criticism of the scientific method taught there, the practical utility of the establishment was evident.⁸⁸

By the late 1830s the faltering progress of higher education had almost come to a halt - a victim of economic stringency, social prejudice and distrust of science. Its 'lifeline', however, the gunnery school at HMS Excellent, resisted all attempts at closure and despite what a contemporary commentator summarised as 'the numerous attacks made upon it by naval officers of all sorts who felt that innovations were being made which might seriously reflect upon bygone days',⁸⁹ it was via the gunnery school that some semblance of higher education was retained. From 1837 to 1839 the gunnery school was the only institution within the Royal Navy that gave theoretical instruction of

any sort. The flaw in its efficiency was that since the closure of the College, it could no longer call on the academic expertise formerly provided by Inman and his staff.

The shortcomings of this soon became apparent for, as Hope commented, the students 'felt the reproach upon their profession arising from the want of a proper educational system and the serious inconveniences resulting therefrom'.⁹⁰ The Admiralty response appeared in an Order in Council of July 1838 when it was announced that the Royal Naval College would reopen, this time as an institution of higher education, to provide 'additional means of scientific education to the young gentlemen and officers of the fleet'.⁹¹ It was to be a very different institution from the original College, for although it occupied the same buildings, it was administrably part of the gunnery school and was completely under the supervision of the Excellent's commanding officer, Captain Sir Thomas Hastings RN. Nevertheless, a small academic staff was recruited under the leadership of the Revd Thomas J Main, Senior Wrangler and Smiths Prizeman, from Cambridge University. Extra staff to teach engineering and mathematics were appointed in 1841 and seven years later a chemistry lecturer joined the College.

The College Progress 1857-69

Thus by 1857 the Royal Naval College Portsmouth, in its third and final form, had been in operation for 18 years. It took no new entrants to the Service and the

majority of its students were experienced officers who had spent some time at sea. The work of the College as a higher education establishment has received little detailed critical study and the few assessments of its efficiency are at variance. Callender has suggested that 'From the first day of its opening the naval University proved an unchallenged success'.⁹² Rodger supports this, noting that courses were 'taught to a very high standard at least equal of the best Cambridge mathematics degree'.⁹³ Lloyd, however, notes its amalgamation with HMS Excellent for the purposes of higher education but dismisses it claiming that the College 'rapidly deteriorated into a cramming establishment for mates (later sub lieutenants) wishing to pass the lieutenants examination about which many farcical stories have been related'.⁹⁴ Sullivan also observes that 'the College reopened to provide special courses for a limited number of mates',⁹⁵ but he then deftly avoids any further consideration of the establishment by claiming that 'these activities were more in the sphere of training than education'.⁹⁶

In view of this ambiguity and the fact that the College was the undoubted progenitor of the Navy's University founded at Greenwich in 1873,⁹⁷ a more methodical study of its activities is required, for even the most cursory examination of the courses provided suggests that the College was more than a cramming establishment for Mates. Indeed it is known that in the 30 years from 1839 the number of Mates was comfortably

exceeded by the total of other officers attending. The Shadwell Committee noted in 1870 that

exclusive of 1,150 Mates or Sub-Lieutenants who have studied there before passing for Lieutenant, 1362 other officers of whom 639 were on half pay have gone through the course of instruction, giving therefore a yearly average of 44 officers who have availed themselves of its advantages⁹⁸

A breakdown of these courses with their dates of foundation appears at Annex A, where it will be noted that the College, while dealing with modest numbers, did serve a wide cross section of the officer class.

The Mates were clearly an important part of this student profile and the background and purpose of their course needs to be made clear if an accurate assessment of College standards is to be made. The term Mate had an interesting and complicated lineage, to the extent that in the first two decades of the nineteenth century there were two separate and distinct categories of men serving, who bore the same title. The Mates entry into the Royal Naval College consisted of men who were originally midshipmen but, due to poor prospects of employment and advancement, had opted for and passed the examination as Masters' Assistants. While this brought an increase in pay, it frequently had the effect of displacing them from the original career path and as they grew older their place in the ship's hierarchy became increasingly incongruous. By the early 1840s there were more than 400 in the Navy List⁹⁹ and seeing no other solution to the problem, the Admiralty decided to convert 'Mate' into a substantive rank, award a commission, and invite applications to study

at the Royal Naval College Portsmouth with a view to passing for Lieutenant. In 1861 the name of the rank was changed to Sub-Lieutenant.

There can be little doubt that in the early years, when the backlog of Mates was considerable that a very high standard of examination was applied. Only two commissions per year were awarded and they were totally dependent on the highest marks gained in the Midsummer and Christmas examinations.¹⁰⁰ Pressure on students was considerable - a contemporary commentator noting

The papers set at the mates examinations were very difficult considering the time allowed to go through the course. They required a considerable knowledge of the higher branches of pure and mixed mathematics; and the problems in calculus, in astronomy and in mechanics, etc were such as might be met within the Cambridge examination papers. In fact the successful competitor for the Lieutenant's commission and his closest rivals had to go through a twelve months hard work, such as is known only to Cambridge wranglers; and instances occasionally occurred of the health of a candidate breaking down under the strain.¹⁰¹

However, it is unlikely that this system persisted long, for the two decades from 1840 witnessed sustained Admiralty action to overhaul numbers in each rank via new systems of retirement and promotion.¹⁰² The result was that the Mate's list gradually diminished as the pressure to obtain a Lieutenant's commission eased. This may account for a slackening of standards and the view of Moresby, a Mate at the College in 1849, that the final examination was 'purely rule of thumb working out a

college sheet with the aid of Inman's Tables'.¹⁰³ The Mates scheme withered away, with Douglas noting that only three or four students were studying in 1851¹⁰⁴ and Shadwell suggesting that no promotion via this system was awarded after 1854.¹⁰⁵ Hope writing a decade later, adhered that 'the course of study for a lieutenant's commission has of late years fallen to the ground'.¹⁰⁶

Perhaps the most interesting courses, and the ones that most accurately conform to the term higher education, were those undertaken by officers on half pay. These men, Captains, Commanders, and Lieutenants, were admitted from February 1842¹⁰⁷ and while they were allowed to spend a maximum of 12 months following any aspect of the College teaching they chose, the study of steam machinery was a popular option. Studies took place in the College, afloat in the instructional tender, and visits were made to the headquarters of major manufacturers including the naval steam factory at Woolwich where, as Hope commented, officers 'did not disdain to wear the mechanics apron and work at the lathe or to take their turn in the stoke hole'.¹⁰⁸ As the number of steam vessels in the Navy List grew, the desire to 'qualify in steam' increased and attendance on College courses for some officers became commonplace.¹⁰⁹

The College possessed good facilities for engineering study. The naval estimates for 1841/42, for example, show a sum of £980, more than half the total budget for the previous year, allocated 'for a small Steam Engine for the Instruction of Students',¹¹⁰ and in the same year the

College instructional tender Bee was launched. She was the first screw driven ship to be ordered for the Admiralty and had both a screw and paddles worked off the same engine. For instructional purposes these could be worked in opposition, with the paddles driving ahead and the screw thrusting astern - an evolution which Brown has noted must surely be the most bizarre trial of all time!¹¹¹ Practical work was also carried out in the steamers Caradoc and Cyclops with students employed in engine rooms measuring cylinders and determining pressure levels.¹¹²

The 1842 Order allowed study at the College on half pay once in each rank and for some this was a popular option although it did not initially increase the likelihood of appropriate employment. Freemantle, who studied on half pay as a Commander in 1862 and again as a Captain in 1871, claimed that it was a popular naval joke that 'if a commander wanted the command of a brig, his best course was to pass in steam!'¹¹³ Nevertheless some perceptive officers identified the advantages of associating themselves with the College and the new technology, including the young Astley Cooper-Key, a future First Sea Lord, who in 1844 took the unusual step of requesting service in a steam vessel. At this time 'steamer lieutenant' was considered a term of abuse,¹¹⁴ but Cooper-Key who studied at the College in every rank - Mate, Lieutenant, Commander and Captain noted 'that the only way to get on in the service by one's own exertion

in time of peace is to join a steamer and follow it up'.¹¹⁵ He rose from Mate to Captain in eight years.

It is important here to note, in the light of Sullivan's refusal to examine the College on the grounds that 'its activities were more in the sphere of training than education',¹¹⁶ that Freemantle, Cooper-Key and the other 600 or so students who studied on half pay, were 'military' officers ie Lieutenants, Commanders, and Captains, who aspired to the sea command of warships. While their motivation for undertaking such study varied, we can be quite certain they were not for example being trained as engineers, for as Penn has noted of the officer structure of the period, 'a man who considered himself a gentleman could never have practised as an engineer without opening himself to the charge of eccentricity'.¹¹⁷ Half-pay students wished rather to be educated in the technology of the Service they would one day command, and courses in steam machinery, which could be undertaken with like-minded companions, provided an ideal opportunity.

Students were served by a talented, though small staff, some of whom undertook important innovatory work. The principal was the Revd Thomas J Main, Senior Wrangler and Fellow of St Johns College Cambridge and of the Astronomical Society, who held the post for 34 years. While at least one distinguished student noted that 'Main was of course very clever but he did not profess to teach us',¹¹⁸ there was no doubting his ability or his identification with the new technology, about which he

published two books, The Indicator and Dynamometer in 1847, and The Marine Steam Engine which appeared in 1849.

Principal Instructor in Engineering was Thomas Brown who was employed at the College from 1841 until 1868. He was almost certainly the Royal Navy's first engineer having joined the Service in 1826 and, with the engineer of the Royal Victoria and Albert steam yacht, was the first to be given Wardroom officer status.¹¹⁹ This move, a remarkable one in a period noted¹²⁰ for rigid class distinction in the Service, was presumably a measure of the personal and professional regard in which Brown was held. His deputy was Assistant Engineer Robert Naughton RN, and lectures were also given by a military officer Captain W J Williams RN who published A Steam Manual for the British Navy.

Another distinguished member of staff was long serving Chemistry Lecturer, W D Hay.¹²¹ He was an expert on marine corrosion who had originally mixed a paint with copper oxide suspended in linseed oil to form 'Hays Compound', which became the standard anti-fouling paint for the new generation of iron warships. Hay later persuaded the Admiralty to build a laboratory for him in Portsmouth Dockyard which he ran for many years with the title 'Admiralty Chemist'.¹²²

While there were good facilities for the study of steam the level of Admiralty financial support for the general running of the Royal Naval College was remarkably sparse throughout. The buildings were adjacent to the main facilities of the dockyard, (See over),

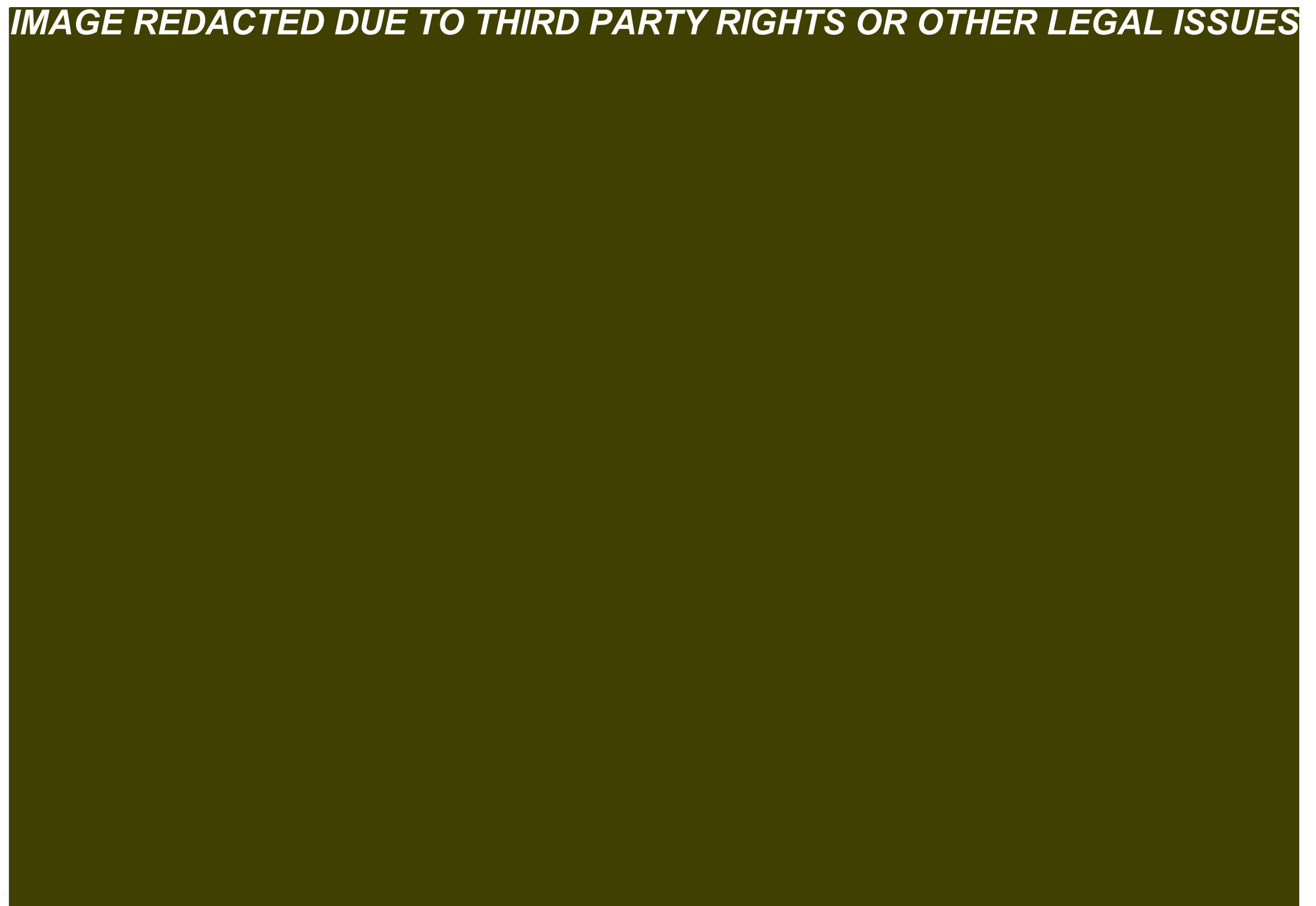


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but they dated from 1727 and their configuration remained largely unchanged up to closure in 1873. Admiral Freemantle studying there as a Commander in 1862, noted that 'the surroundings were not altogether suitable to make it a place of learning'.¹²³ Captain Charles Hope, one of his fellow students, commented on the misuse of the College observatory which if 'properly fitted up and set apart for the use of officers studying astronomy, this very important science would at once be placed within the reach of all'.¹²⁴ There seems to be substance in these comments for the primary criticism of the College made by the Shadwell Committee was that it was 'deficient in comfort in its domestic arrangements and wanting in some important parts in the accommodation expected in the present day for educational purposes'.¹²⁵

A survey of the annual naval estimates demonstrates the niggardliness of Admiralty provision throughout the lifetime of what was officially termed the 'Establishment for Scientific Education at the Royal Naval College Portsmouth'.¹²⁶ The sums allocated, together with explanatory notes appear at Annex B where it will be seen that in its first year it absorbed just £686 out of a budget for the Scientific Branch that amounted to £26,597.¹²⁷ By 1842, with the Professor's salary and the costs of purchasing a steam engine included, it had risen to £2912¹²⁸ but it then settled at a little under £2000 per annum and took almost 20 years to exceed £3000. Nowhere does there appear any outlay on buildings and while annual rates of between £20 and £50 were included

for the students' library, the estimate was eventually a wage bill for the academic and domestic staff.

An overall assessment of the activities of the Royal Naval College up to 1868 suggests that Sullivan's assumption that it was primarily a training establishment is not derived from detailed investigation. Clearly courses for personnel such as Assistant Engineers or Naval Instructors had direct professional relevance to the tasks they would undertake at sea and some study was necessarily vocational. Likewise the continual examination of candidates for naval cadetship and, as the Principal complained to the Shadwell Committee, 'preparing backward sub lieutenants for the Lieutenants examination',¹²⁹ were mundane and repetitive tasks. Yet the nature of these activities hardly seems to justify the exclusion of any consideration of the Royal Naval College from Sullivan's account of nineteenth-century education. Similarly, while the high standards and limited success rate that characterised the early Mates' course may support Lloyd's view of the College as a 'cramming establishment', this assessment cannot be applied to the whole scope of the institution's activities.

In fact there is much to support the view that the Royal Naval College Portsmouth constituted a genuine and serious institution of higher education. Its initial purpose was to provide 'additional means of scientific education to the young gentlemen and officers of the

fleet',¹³⁰ and this in turn was defined by a requirement for advanced study in direct support of professional naval skills such as gunnery and naval architecture. This was a persistent dimension in its activities. The College also had some claim to be undertaking innovatory work - Hay's research on marine corrosion or Brown's instruction aboard the Admiralty's first screw driven ship, are examples. Perhaps, more importantly, the College introduced the concept of providing facilities for voluntary study by any officer, no matter how senior, who wished to apply. The fact that this was achieved by a small staff with a paucity of funds, at a time when many officers in the Service looked upon scientific attainments not so much as a waste of time, but as 'injurious to the acquisition of seamanship and the details of routine',¹³¹ underlines its importance and emphasises its special place in the development of naval education.

It will be noted that, prior to 1869, the overall development of naval education, exclusive of that undertaken in the Training Ship, falls into two distinct areas - the continuing education conducted in operational warships by Naval Instructors and the activities of the Royal Naval College Portsmouth. There are several conclusions to draw covering these separate activities and the general relationship between them. The first is to note that despite the advent of the 1857 short course in the Training Ship and its extension to 12 months some two years later, the bulk of the young officers' educational experience was, in theory anyway, conducted over a much

longer period while serving at sea. Thus although the introduction of the Illustrious/Britannia system was an epoch-making move, it did not significantly shift the balance towards formal controlled instruction in dedicated surroundings. While there was evidence in Circulars 288 and 393 of an increased Admiralty concern to monitor and control education at sea, the bulk of the evidence suggests that this was unsuccessful.

The immediate reason for this was the poor level of provision and competence of the Naval Instructors appointed to carry out the task. It was been shown that the numbers actively engaged in teaching at sea were considerably lower than the nominal figures suggested in the Navy List, and that even the Admiralty's ill-advised policy of attempting to combine the posts of Chaplain and Naval Instructor did not redress the problem.

While insufficient numbers undoubtedly hampered the process, the principal inadequacy of the system up to 1869 stemmed from the traditional difficulty of attempting to educate at sea in the first place. The practical problem of imposing dedicated instructional time on the routine of a warship, which inevitably would have first call on a young officer's time, regardless of Admiralty stipulation, had long been recognised. Attempting to do so in an era when the Fleets were both overstretched and trying to come to terms with an extensive new technology only exacerbated the problem. In a sense the Admiralty was striving to regulate and improve a system that was fundamentally flawed and the Shadwell Committee's recommendation¹³² that Naval Instructors at sea should be abolished, was tacit

recognition of this fact.

In contrast, the activities of the Royal Naval College Portsmouth during the period constituted both a successful experiment and tangible evidence of the direction in which the Service would move in the future. To claim that this understaffed, sparsely resourced institution was anything more than tangential to the Royal Navy's activities would be to overstate its importance. Nevertheless, while the College saw only a fraction of the officer corps as students it did demonstrate its practical utility in support of the principal professional skill of naval gunnery, and it also provided an important opportunity for a small number of talented officers to explore and become acquainted with the new technology of the day.

It is also possible to observe in the activities of the College the inklings of an embryonic naval educational bureaucracy. From 1857, for example, all officer candidates were required to attend for the purposes of undergoing the initial entrance examination prior to proceeding to the training ship. After initial training and a qualifying period at sea, during which they were taught by College trained Naval Instructors, young officers returned to the institution to be examined for the rank of Lieutenant. While it is still too early to see the Royal Naval College actually directing the Navy's educational policy, and while the amount of contact it had with the officer corps was too limited to characterise it as an alma mater, by 1869 College examinations and the standards they implied, had a general currency within the Service.

Classes of Officers Admitted * to the
Royal Naval College Portsmouth

<u>Relevant Order</u> <u>in Council</u>	<u>Course</u>	<u>Months</u> <u>Study</u>
8th June 1837	Mates for Lieutenants Commission	12
20th March 1841	Marine Officers qualifying for the Royal Marine Artillery	12
6th February 1842	Captains, Commanders and Lieutenants on half pay	12
10th February 1852	Masters (Navigating Lieutenants)	Not Specified
15th August 1852	Candidates for Naval Instructors	5
27th February 1853 7th June 1853	Chief or Assistant Engineers on)full pay, doing duty in harbour	12
11 April 1858	Sub Lieutenants preparing for examination	3
10 August 1864	Lieutenants for gunnery appoint- ments prior to study on board <u>Excellent</u>	6

* Candidates for cadetships were also examined at the Royal Naval College, throughout the period.

Source: Shadwell Report Para 5 & 6

Sums voted to the Establishment for Scientific
Education at the Royal Naval College Portsmouth
from Volumes of the Naval Estimates 1839-1873

<u>Year</u>	<u>Sum</u>	<u>Notes</u>
1839/40	£686	Does not include Professors' salary
1840/41	£1442	Professors' salary £500
1841/42	£2912	(a) Extra Staff - Assistant Instructor - Mathematical Master (b) £980 'for a small steam engine for Instruction'
1842/43	£1942	
1843/44	£1956	
1844/45	£1956	
1845/46	£2052	
1846/47	£2115	
1847/48	£2162	
1848/49	£2462	Chemical Lecturer appointed. Salary £300
1849/50	£2462	
1850/51	£2452	Messengers wages reduced by £10!
1851/52	£2502	Chemical Lecturers salary increased by £50
1852/53	£2496	
1853/54	£2321	
1854/55	£2418	
1855/56	£2641	
1856/57	£2782	Teacher of Sword Exercise appointed. Salary £150
1857/58	£2782	
1858/59	£2783	
1859/60	£2890	Extra £50 to Chemistry Lecturer for teaching Cadets in Training Ship

1860/61	£3083	(a) French Instructor appointed. Salary £150 (b) £30 for rent of Cricket Field
1861/62	£3212	
1862/63	£3408	Salary of Professor and Assistant Professor increased
1863/64	£3413	
1864/65	£3517	(a) Cricket Field discontinued (b) £20 for purchase of models of steam machinery for use of officers studying at Royal Naval College
1865/66	£3561	
1866/67	£3233	Chemists' salary transferred to Dockyard vote
1867/68	£2985	Mathematical Master/Messenger & Porter do not appear
1868/69	£3037	
1869/70	£2817	Teacher of Sword Exercise does not appear
1870/71	£5385	In 1870 the accounting system is changed
1871/72	£6136	and a number of staff borne on the books of HMS <u>Excellent</u> are now accounted for in the expenses of RNC.
1872/73	£6368	Although a sum is given, no individual allocations are listed. The figure is quoted as 'under revision'.
1873/74		The Royal Naval College Greenwich is established at the cost of £18,030.

Chapter Two - Notes

1. Navy List (correct to 20 March 1860) p241
2. O Parkes British Battleships (1966) p8
3. A Lambert Warrior. Restoring the World's First Ironclad (1987) pl63
4. C W D Beresford Memoirs of Lord Charles Beresford (1914) pl2
5. ibid pl2
6. ibid p21
7. A Lambert op cit p23
8. ibid p23
9. ibid p62
10. C J Bartlett 'The Mid Victorian Reappraisal of Naval Policy' in K Bourne and D C Watt Studies in International History (1967) pl92
11. A Preston and J Major Send a Gunboat! (1967) p55
12. W Clowes The Royal Navy. A History Vol 7 (1903) pl40
13. C Lloyd and J L S Coulter Medicine and the Navy Vol 4 (1963) p271
14. Admiralty Circular 288 23 February 1857 ADM 7/890
15. ibid
16. ibid
17. ibid
18. ibid
19. ibid
20. ibid
21. ibid
22. Navy List (correct to 20 March 1860) p241
23. vide Chapter One
24. Navy List (correct to 20 December 1865) p293
25. vide Chapter One
26. Navy List (correct to 20 December 1849) pl94
27. ibid

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|-----|---|-------------------|
| 28. | <u>Queen's Regulations for the Royal Navy</u> (1844) | p349 |
| 29. | ibid | p27 |
| 30. | Admiralty Order in Council 10 August 1840 | <u>ADM 1/5502</u> |
| 31. | Admiralty Order in Council 11 March 1842 | <u>ADM 1/5511</u> |
| 32. | Admiralty Order in Council 30 January 1856 | <u>ADM 1/5680</u> |
| 33. | M Lewis <u>The Navy in Transition</u> (1965) | p144 |
| 34. | ibid | p148 |
| 35. | Admiralty Order in Council 11 March 1842 | <u>ADM 1/5111</u> |
| 36. | <u>Navy List</u> (correct to 20 March 1858) | p222 |
| 37. | Admiralty Order in Council 11 March 1842 | <u>ADM 1/5111</u> |
| 38. | Admiralty Order in Council 30 April 1861 | <u>ADM 1/5861</u> |
| 39. | Admiralty Order in Council 9 July 1864 | <u>ADM 1/5913</u> |
| 40. | F B Sullivan The Evolution and Development of Education
in the Royal Navy <u>Reading PhD</u> (1974) | p129 |
| 41. | <u>Navy List</u> (correct to 20 June 1842) | p169 |
| 42. | <u>Navy List</u> (correct to 20 March 1846) | p178 |
| 43. | <u>Navy List</u> (correct to 20 June 1848) | p193 |
| 44. | F B Sullivan op cit (1974) | p127 |
| 45. | ibid | p127 |
| 46. | ibid | p131 |
| 47. | Admiralty Order in Council 22 February 1870 | <u>ADM 1/6183</u> |
| 48. | F B Sullivan op cit (1974) | p133 |
| 49. | Admiralty Order in Council 22 February 1870 | <u>ADM 1/6183</u> |
| 50. | vide Introduction | p12 |
| 51. | <u>Navy List</u> (correct to 20 September 1860) | |
| 52. | <u>Army and Navy Gazette</u> 19 May 1860 | p332 |
| 53. | ibid | |
| 54. | ibid | |
| 55. | ibid | |
| 56. | F B Sullivan op cit (1974) | p131 |

Chapter Two - Notes (continued)

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|-----|---|-------------------|
| 57. | <u>Committee upon the Higher Education of Naval Officers</u>
(Shadwell Report) C203 (1870) | Para655 |
| 58. | ibid | Paral097 |
| 59. | ibid | Para384 |
| 60. | ibid | Para66 |
| 61. | ibid | P xi |
| 62. | ibid | P xi |
| 63. | ibid | P xi |
| 64. | Admiralty Order in Council 21 February 1729 | <u>ADM 1/5156</u> |
| 65. | F B Sullivan 'The Royal Academy at Portsmouth 1729-1806'
<u>Mariners Mirror</u> (1977) | Vol 63 p320 |
| 66. | E P Statham <u>The Story of the Britannia</u> (1904) | p22 |
| 67. | M Lewis op cit (1965) | p103 |
| 68. | Admiralty Order in Council 28 February 1822 | <u>ADM 1/5232</u> |
| 69. | E P Statham op cit (1904) | p26 |
| 70. | C C Lloyd 'The Origins of HMS <u>Excellent</u> '
<u>Mariners Mirror</u> (1955) Vol 41 | p193 |
| 71. | ibid | p194/195 |
| 72. | R Harris <u>A Historical Sketch of the General Means</u>
<u>Adopted for the Education of Naval Officers</u> (1863) | p18 |
| 73. | ibid | |
| 74. | D K Brown <u>Before the Ironclad</u> (1990) | p19 |
| 75. | ibid | p21/22 |
| 76. | N Macleod 'Shipwright Officers of the Royal Dockyards'
<u>Mariners Mirror</u> (1925) Vol 11 | p363 |
| 77. | R Harris op cit | p24 |
| 78. | N Macleod op cit | p363 |
| 79. | D K Brown op cit | p23 |
| 80. | J H Briggs <u>Naval Administrations 1827-92</u> (1897) | p62/63 |
| 81. | M Lewis op cit (1965) | p102 |
| 82. | D K Brown op cit | p24 |
| 83. | ibid | |

Chapter Two - Notes (continued)

84. S Bonnett	<u>The Price of Admiralty</u> (1968)	Ch4
85. N Macleod	op cit	p363
86.	vide Chapter One	
87. J H Briggs	op cit	p48
88. G Callender	'An Educational Centenary' <u>Mariners Mirror</u> (1939) Vol 25	p15
89. R Harris	op cit	p29
90. C W Hope	'The Education and Training of Naval Officers' <u>Blackwoods Magazine</u> Nov 1869	p19
91. C C Lloyd	'The Royal Naval Colleges at Portsmouth and Greenwich' <u>Mariners Mirror</u> (1966) Vol 2	p148
92. G Callender	op cit	p16
93. N A M Rodger	'British Naval Thought and Naval Policy 1820-1890' in <u>New Aspects of Naval History</u> ed Symons(1981)	p148
94. C C Lloyd	op cit (1966)	p148
95. F B Sullivan	op cit (1974)	p212
96.	ibid	
97. <u>Shadwell Report</u>	op cit	p xii
98.	ibid	
99. M Lewis	op cit (1965)	p109
100. R Harris	op cit	p31
101. C W Hope	op cit	p21
102. M Lewis	op cit (1965)	p121
103. J Moresby	<u>Two Admirals</u> (1909)	p91
104. H Douglas	<u>A Treatise on Naval Gunnery</u> (1851)	p22
105. <u>Shadwell Report</u>	op cit	pxvii
106. C W Hope	op cit	p30
107. <u>Shadwell Report</u>	op cit	pviii
108. C W Hope	op cit	p22
109.	ibid	
110. <u>Naval Estimates 1841/42</u>		p15

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111.D K Brown	op cit	p115
112.G B Penn	<u>Up Funnel, Down Screw!</u> (1955)	p52
113.E R Freemantle	<u>The Navy As I Have Known It</u> (N.D.)	p137
114.P H Colomb	<u>Memoirs of Cooper Key</u> (1898)	p87
115.	ibid	
116.F B Sullivan	op cit (1974)	p212
117.G B Penn	op cit	p51
118.S M Burroughs	<u>The Autobiography of Montagu Burrows</u> (1908)	p140
119.G B Penn	op cit	p68
120.M Lewis	op cit(1965)	p21
121.D K Brown	op cit	p202
122.	ibid	p202
123.E R Freemantle	op cit	p139
124.C W Hope	op cit	p3
125. <u>Shadwell Report</u>	op cit	pxiii
126. <u>Naval Estimates</u>	1839/40	p15
127.	ibid	p15
128. <u>Naval Estimates</u>	1841/42	p15
129. <u>Shadwell Report</u>	op cit	p142
130.Admiralty Order in Council	8 July 1838	<u>ADM 1/5245</u>
131.P H Colomb	op cit	p66
132. <u>Shadwell Report</u>	op cit	pxi

Chapter Three

The Progress of the Training Ship 1862-1868

Abstract

This Chapter considers the progress of the training ship from the autumn of 1862 until December 1868. It examines the decision to move the Britannia from Portsmouth, the attempt to find a satisfactory new location, and concerns about habitability and health of Cadets evident throughout this process.

Existing assessments of life in the training ship are challenged, in particular the extent and nature of the punishment routine on board is re-examined, and the content of the syllabus re-evaluated.

This Chapter concludes by examining the establishment of the post of Director of Education for the Admiralty and considering the extent and nature of his connection with officer education during the period.

The Move to Portland and Dartmouth

By the end of 1861 the Britannia had become an established part of the Portsmouth naval scene. She was positioned close to the harbour entrance at the mouth of Haslar Creek, and Cadets had access to safe landing in all weathers. Her Captain, Robert Harris, considered the mooring to be ideal for both instructional and recreational purposes.¹ Classes could land at Blockhouse beach to undertake nautical surveying, and a drill ground and safe bathing place were equally adjacent. He also stressed the advantages of proximity to the dockyard and the opportunity this gave for Cadets to observe movements, ship construction and fitting out work. Mindful of the reputation of the great naval port, Harris assured parents that 'at no period of their future career will the Cadets be less exposed to temptation than their year of probation in the Britannia.'²

That officer training was conducted at Portsmouth was of course due to nothing more than the fact that the ratings training ship was moored there when it was adapted for the purpose in 1857. While there were some advantages to the situation there were also considerable drawbacks. The vessel was not in fact moored in particularly healthy surroundings, for the creek dried out at low water leaving extensive and foul smelling mud flats close by. On the Gosport shore sporting facilities were limited and the close proximity of both a prison and the great naval hospital at Haslar - the surroundings of which had a long standing reputation for disorder³ - were far from ideal.

Across the harbour the town of Portsmouth was even less attractive. Despite various reforming measures in sailors' welfare during the 1850s, including the advent of continuous service, leave, and an established uniform, Portsea and the area around the Royal Dockyard retained a notorious reputation. The system of withholding pay until the end of a commission, for example, ensured that sailor's behaviour ashore remained as riotous as ever. Capper's earliest recollections of blue jackets were as a child clinging to his mother's skirts, as sailors fought a pitched battle against the police in a normally quiet Portsmouth side street.⁴ In 1864 he noted gangs of sailors paid off after a long foreign commission processing with 'the tooting of horns and the strains of shanties', to the surrounding villages, 'where unrepeatable orgies took place'.⁵

This unseemly behaviour was reflected in the state of public health in the town for, in the years after the Crimean War, the incidence of venereal disease, for instance, reached epidemic proportions, creating for the Admiralty their principal public health problem in the three decades up to 1880.⁶ Portsmouth was declared an infected area in 1860 and three years later the police reported identifying 1791 known prostitutes - one in every 53 of the town's population.⁷ Not surprisingly the town was one of the first to be scheduled under the Contagious Diseases Act of 1864.⁸ Clearly such surroundings were not ideal for the recreation of young Cadets, or indeed the sailors who trained them - amongst whom 24 cases of sexually transmitted diseases were reported in 1861

alone.⁹

The Naval Chronicle acknowledged the pernicious atmosphere of Portsmouth and noting how 'the petty influences by which we are surrounded increasingly instil themselves for good or evil into the very growth of our natures',¹⁰ argued that Cadet training should be conducted elsewhere. Portsmouth was unsuitable argued the paper

because of its notoriously immoral character, its squalor abominations, evil influences and examples and the little or no opportunity it offers for the enjoyment of fresh country, air and exercise.¹¹

This attack provoked considerable local hostility and a municipal delegation was despatched to the Admiralty to oppose any move, stress the advantages of the ship's situation and lobby for its retention in the harbour.¹² Their failure to achieve a successful outcome would, argued the Army and Navy Gazette, mean that 'one, if not both, of the gentlemen who now represent the town may run a risk of being ousted at the next election'.¹³

However, despite the efforts of tradesmen and civic dignatories alike the Admiralty directed in December 1861 that the Britannia would leave, on account of the 'great objections to the ship being there because of the temptations to which the boys were exposed when allowed to go ashore'.¹⁴ Although the Board statement assured Portsmouth inhabitants that their decision was taken 'entirely irrespective of the sanitary conditions of that part of the harbour where the ship has been moored',¹⁵ evidence in the Statistical Report on the Health of the Navy¹⁶ the following year suggested the contrary.

From 1861 the aim of this annual publication was not only statistical, but also to indicate as far as possible the probable causes of sickness and mortality in the Service, and this it attempted to do in reporting a bout of sickness in Britannia in the October of that year. While the author A E Mackay remained sceptical, he admitted there was

the opinion entertained by some that these fevers were altogether caused by the emanations from the mud and sewer drains which empty themselves into the Haslar and Gosport creeks off which this vessel was moored. In order, however, to remove any possible risk from such a cause the ship was removed...¹⁷

Thus the decision to move was apparently based on moral and physical welfare and the need for young men to avoid the temptations of a large seaport, and also because the immediate surroundings of the ship were felt, by some at least, to be physically unhealthy.

The new location appeared, initially, to solve both problems, for it was decided that the ship would relocate to an isolated anchorage off the coast of Dorset in the Portland Roads. The move took some months to organise and it was not until the afternoon of 6 February 1862 that the Britannia, assisted by the tug Lucifer and the steam two decker HMS Trafalgar, slipped from Portsmouth for the last time. She arrived the following morning and picked up moorings in the lee of the breakwater of Portland Harbour, where she was to lie until September of the following year.

The 18 months spent at Portland have received little detailed attention. The ideal witness to the era should

be Statham, for he joined the Service in December 1861 and thus spent almost all his training time at Portland. Yet he has little to say about events and, apart from bemoaning the lack of recreational facilities, he confines himself to ephemera, concluding that 'Of the period at Portland, which as will be seen was not very long - the principal characteristic was its monotony'.¹⁸ No other commentator devotes more than a paragraph to the topic and all are content to support Statham's contention that this period was uneventful.

If one of the justifications for moving the ship was to distance young officers from pernicious surroundings, then Portland was an appropriate choice. There was no centre of population nearby, and the hinterland consisted of only a small village with a single street. The nearest sizeable town was Weymouth but this was some distance away and could only be visited on half holidays and special occasions. In fact, apart from relative isolation, Portland as a venue for training had almost nothing to offer.

Although Cadets' sick quarters were established ashore shortly after arrival, the surrounding area was generally unsuitable for shore based facilities - the peninsular being so steep, that no playing field could be found. Apart from sailing and boating there was little to occupy the Cadets' spare time. This drawback was emphasised by the death of Cadet Alfred P Cox, who fell while collecting birds' eggs on the cliffs and was 'discharged dead' on 4th June 1862.¹⁹ Harris was clearly unhappy with the new location,²⁰ for the anchorage was

exposed to both easterly and northerly gales and so much time was spent getting from ship to shore that a routine was difficult to achieve. Shortly after the ship's arrival it was necessary to engage, at private expense, a small steam tender, for as Harris noted, even daily supplies could not be depended upon, when using the ship's own boats.²¹

It has been established that a concern about the habitability and environs of the ship had been a factor in her relocation, and on arrival at Portland she was deliberately moored in an isolated position '600 yards from the shore in a locality where there was neither mud nor sewerage',²² to try to minimise the incidence of sickness and improve habitability on board. By this stage the removal of her guns enabled her to float proud of her load-line and the scuttles had been enlarged to provide an increased air flow. Large instructional spaces were situated in previously cramped and crowded gundecks and instead of 995 men, she had a complement of less than 300 Cadets. Although Cadets still used the lower decks for living space, they were given almost twice the room to sling hammocks as in the ship's operational days.²³

Despite these measures, within two months of her arrival the ship was again subject to widespread sickness amongst Cadets. In April 1862 the Naval Chronicle reported cases in the ship, which it noted were serious enough to be employed by the Portsmouth lobby to rekindle arguments for the ship's return to Haslar Creek.²⁴ In November the Army and Navy Gazette noted 'the many defects which exist on board in connection with the sanitary

arrangements which keep the doctor's list far longer than could be desired'.²⁵ It also reported sickness aboard and announced that the Inspector General of Fleets and Hospitals had been despatched to the ship on behalf of the Admiralty Board so that 'an opinion of the highest order might be at their disposal in the event of an explanation being required from them'.²⁶ In December a leading article in the same paper noted that

the state of the Britannia has not only caused deep anxiety to the relatives of the boys on board but has for some times past, given their Lordships no little trouble.²⁷

It also alleged that fever was rife on board and that at least one Cadet had died.²⁸

An examination of the relevant Report of the Health of the Navy reveals that this concern was well justified with the author noting that in 1862 there had been 295 cases of primary fever on the Home Station and that the Britannia with 43 cases, four of them fatal, had been the most seriously affected ship in the fleet. While it was noted that in character 'this was unquestionably a very grave form of fever',²⁹ there seemed little attempt to analyse the cause. Mackay's editorial content, which has been described as exuding 'a truly mid-Victorian complacency about the health of the Navy',³⁰ ventured only to note that the Surgeon of the ship was at a loss to understand why the epidemic had occurred and to conclude that the fever was 'imported on board and spread to a few of the cadets in the mysterious manner so common',³¹.

The following year a further epidemic, this time of scarlet fever, struck the ship with 24 cases reported, two

IMAGE REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER L

As part of a project initiated in 1972 for the disciplined recovery of artifacts from the site of HMS Britannia and Hindostan at Dartmouth, the position of both ships has been determined with great accuracy. Work by Parker and others using a combination of perspective information from old photographs and a detailed examination of debris on the river bed has enabled the position of the ship to be measured to a probability error of less than one metre.

of which proved fatal.³² Although the majority of cases were treated in the infirmary ashore, at least one patient had to remain on board due to the difficulty of landing in rough weather. By the time of this outbreak however, the disadvantages of Portland had become obvious to the Admiralty and the decision was again taken to move. The incidence of ill health was not acknowledged as a factor, the Private Secretary to the First Lord preferring to note 'an objection that for two or three days together boats could not leave the ship without risk to the boys'.³³ The Admiralty were already in possession of an extensive survey of south coast locations for naval training, drawn up in the wake of a Select Committee recommendation³⁴ to establish a naval college ashore. Dartmouth with its enclosed anchorage, extensive surrounding countryside, safe landing in all weathers and proximity to a small town appeared ideal, and while the possible detrimental effects of a close harbour were considered³⁵, the River Dart was chosen as the new location for Cadets' training.

On the morning of 29 September 1863 under tow from the paddle sloop Geyser and the tug Prospero, the training ship left Portland and arrived at the mouth of the Dart the next morning. She proceeded up river and was moored about half a mile from the town close to the western bank of the river (See 3/1). While Statham notes that her arrival was greeted by 'the enthusiastic cheers of the inhabitants',³⁶ this zeal might have been tempered had they known what was actually happening on board the ship, for it was yet again in the grip of an outbreak of scarlet fever.³⁷ Eleven cadets had been left in the sick quarters

at Portland and on arrival at Dartmouth the remainder were given a short holiday while 'the decks were scrubbed with a disinfecting powder and the beams and sides of the ship were well white-washed',³⁸

These measures had little effect, for when the Cadets returned from their Michaelmas holiday the disease persisted with additional cases being reported in October and November. In the close confined spaces of mess decks there was little hope of treating the infectionary cycle and Staff Surgeon William Saunders noted that by the 8th November 1863

the parents of the cadets being in a great state of alarm and no prospect of the disease disappearing, a fresh outbreak having just taken place, my advice was that the cadets should be sent to their homes which was immediately acted upon.³⁹

Thus, all those not passing out at the end of the Christmas term were medically examined and removed from the ship, leaving about 50 Cadets to complete their course. Amongst those remaining no further sickness was observed and when they left, Saunders reported that

the ship was fumigated, the decks were washed with a solution of chloride of zinc, the beams and sides of the ship were white-washed, all the counterpanes and sheets were washed and the beds well aired.⁴⁰

These measures apparently solved the problem and no further cases were reported after the end of the autumn term, until late in 1865.

The Portland era was undoubtedly an unhappy one and the decision to relocate there ill considered. The lack of recreational facilities, exposed position of the ship

and subsequent high percentage of time spent on board, particularly in bad weather, did little to enhance the quality of training. While the incidence of sickness was probably no worse than in a contemporary public school, it did focus attention on the environment in which Cadets lived. By this stage the Britannia was over 40 years old, had an appalling previous history of sickness (See Annex A.) and in common with other ships of her age had acknowledged difficulties in ventilation and the extraction of foul air, particularly from the lower regions of the vessel. It has also been suggested that, even by 1866, her routine still included the daily washing down of decks with salt water⁴¹ - a highly questionable practice which resulted in persistent damp, humidity, difficulty in extracting foul water from the bilges and a consequent debilitating effect on the health of personnel.⁴²

It will be noted that despite the fact that Statham was actually on board the ship at Portland these events remain unacknowledged - indeed at no time in his history of the ship are health or habitability ever fully addressed. This clearly places a question mark against the overall veracity of his account for it is quite clear from the annals of the Service press, from official medical reports and from an examination of the factors leading to the establishment of the Committee on the System of Training Cadets on board HMS Britannia of 1875, that these subjects were matters of serious concern. The issue of health had been a principal factor in the relocation of the training ship, and was to continue both to promote Admiralty concern and underpin arguments about

whether training should take place afloat or ashore, until the end of the period.

During the time at Portland Captain Harris relinquished his appointment. He had been in command successively of the Illustrious and the Britannia since 1854 and had thus superintended both boys and Cadets training from the inception of the scheme. In both his personal conduct in command and in his lengthy pamphlet published in 1863,⁴³ he is revealed as a thoughtful and perceptive commentator, keen to initiate an educational debate within the Service and to stress that 'no pecuniary consideration should interfere with the full development of whatever institution may be considered best suited to promote this great object'.⁴⁴ Perhaps most pertinent, given his extensive personal involvement with the training ship concept, were his efforts to balance the advantages of shipborne and shoreside education and his conclusion that 'a College might be nearly as advantageous for training and far less expensive than a training ship'.⁴⁵

Harris paid a price for his dedication, for having spent eight years in a non-sea going command, he was debarred from further promotion. Although in November 1862 it was suggested that he might become the Superintendent of Deptford Dockyard,⁴⁶ this did not materialise and he was not employed in the Service again prior to his death in January 1865. While such an injustice was not untypical of the archaic system of advancement that typified the period, it was an unfortunate end to a distinguished career, and one that failed to recognise a major contribution to the

development of officer education in the Service.

The new Captain was Richard A Powell, who had joined the Service at the Royal Naval College Portsmouth and graduated in December 1831. He passed for Lieutenant in 1836 and was promoted six years later. Apart from his time at the gunnery school in HMS Excellent, Powell spent an unusually large proportion of his service in steam ships - Hydra in 1842, Penelope the following year and, after twelve months half pay, as First Lieutenant of the steam sloop Styx. He was promoted Commander in 1851 and Captain four years later. Prior to his appointment in the training ship he had been in command of the new ironclad HMS Defence, in the Channel Squadron.

The period at Dartmouth under Powell's command saw a series of modifications and improvements in new entry training, including the provision of a second ship to provide further classroom and accommodation space for an increased number of Cadets. This was necessary because numbers under training were still largely based on the relative strength of the Lieutenant's list and thus the annual intake was subject to fluctuation. In 1863 for example the entry had numbered 122,⁴⁷ but the following year a potential paucity of Lieutenants was identified and some 217⁴⁸ new entrants joined the Service, pushing the complement of the Britannia to over 300. To counter possible charges of overcrowding, the Admiralty decided that the old two decker Hindustan should be brought from Devonport and used in conjunction with the training ship. She was an unconverted 84 gun second rate ship displacing 2029 tons, originally laid down in August 1828 but not

The Britannia and Hindostan
moored stem to stern with
inter-connecting walkway
Photo: College Archive

IMAGE REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES



launched until 1841, by which time she was virtually obsolete. The Hindustan arrived at Dartmouth in 1864 and was moored ahead of Britannia (See 3/2) with a connecting bridge constructed between the two and continued to be used up to the advent of shore training in 1905.

Other improvements during Powell's regime included the establishment of a beach for landing Cadet's boats and the construction of a cricket ground which could be reached without walking through the town. In 1865 a gentleman's residence was acquired on lease for use as Cadet's Sick Quarters and supplemented by an adjacent cottage for the reception of infectious cases.⁴⁹ While this was considered by medical staff to be 'well adapted for the purpose', it was not sufficient to deal with wide spread illnesses and it was noted that property in the town had to be rented periodically to provide additional patient accommodation.⁵⁰

In the same year revised regulations for the entry and examination of new entrants were issued. These were similar to the instructions contained in Circular 393 of 1859,⁵¹ with some small exceptions. From February 1865 it was no longer necessary for candidates to demonstrate proficiency in Latin on entry, the ability to 'read translate and parse a passage from French or some other Foreign Living Language',⁵² being deemed sufficient. Other modifications included an acknowledgement that no sea training ship was available,⁵³ and thus on passing out of the Britannia, Cadets would be posted to operational warships. Finally the system of awarding seniority on the basis of academic performance was abolished. In future, those who passed the course would be appointed to a new ship and those who failed would be

discharged from the Service.⁵⁴

Meanwhile the debate about whether the Britannia might better be replaced by a shoreside college rumbled on. The Army and Navy Gazette reported that, with the advent of the financial year 1864/65, it was rumoured that the 'supplementary vote which will be brought forward by the Secretary to the Admiralty will include a sum of £100,000 to be devoted to the erection of a naval college'.⁵⁵ The publication of the estimates, however, revealed the familiar pattern of reduction. Over one million pounds had been lopped off the 1863 budget, the following year saw a further fall of £30,000 and in 1865 a further £300,000 was saved.⁵⁶ The estimates for 1864/65 showed no evidence of any intention to spend on a naval college and although it has been noted that the First Lord was personally in favour of such a scheme⁵⁷, the climate of reduction precluded the capital outlay. While the 1864/65 budget did include a supplementary estimate, it was not for education, but to cover modifications in seaman's wages.⁵⁸

In late 1865 it was announced that Powell, who had spent three years in the Britannia, was to be reappointed. This period had not been an easy one and it was to his credit that considerable advances had been achieved. The principal improvement was clearly the relocation of the ship to Dartmouth and the expansion of the facilities there. When he left in April 1866, the Britannia now supplemented by Hindustan, safe in an enclosed harbour with recreational and medical facilities established ashore, stood in marked contrast to the command he assumed in the Portland Roads in 1862.

Powell had come to the Britannia from commanding the Navy's latest ironclad battleship and had spent most of his career in steam ships. He had studied at the Royal Naval College Portsmouth, as had Harris who had been there on half pay in 1842. The regime of both men was characterised by a strong sense of pastoral care and an enlightened and improving approach to the training of young officers. This had been the cause for occasional criticism from some elements in the Service who favoured a harsher regime and questioned whether 'the system on board the Britannia is adapted for training up future Nelsons and Collingwoods'.⁵⁹ This sort of view was persistently in evidence in the columns of the press in the early years, although it seldom received editorial support. Harris, commenting on his own time and on Powell's early months in command, noted that

it was fortunate for the Naval cadets on board Britannia as well as for the Service, that the views of discipline frequently proposed by persons incapable of taking a broad view of the subject and sometimes urged through the columns of the press, were not adopted.⁶⁰

The arrival of Powell's successor on 20 April 1866 however, marked a distinct change, for Captain George G Randolph was an acknowledged disciplinarian and one who 'enjoyed a great reputation for strictness and of whom his subordinates stood in awe'.⁶¹ He had obtained his first commission in June 1838 and spent a large proportion of his career in sailing ships often in distant waters. As a Lieutenant he had commanded a ship's boat in bitter fighting at the destruction of fortifications in the Brunei River in 1845.⁶² He was promoted Captain nine years later and immediately prior to the Britannia he had commanded the

screw frigate Orlando where it was noted 'the times put up by his crew for handling spans and sails remain records'.⁶³ Statham noted ominously that although fair, 'he was a man disposed to err perhaps on the side of severity',⁶⁴ and that he would 'carry out any threat or promise to the bitter end, even though it may invoke the antagonism of the whole of his subordinates'.⁶⁵ During his short time in command, the Britannia was subject to both national press coverage and questions in the House of Commons concerning the nature of the regime in the ship and in particular the extent of corporal punishment.

Corporal Punishment.

The history of this practice is discussed by most commentators on naval education and is perhaps the best example of the unsubstantiated repetition of events originally cited by one source. As with most other detail Statham is the original narrator who notes that the practice was not evident in Harris' time but that at Portland 'the Admiralty decided to re-introduce corporal punishment for serious offences among the Cadets'.⁶⁶ No Circular, Order in Council or other reference is cited in support of this policy change and the date of its introduction is only given as 'not long after the appointment of Captain Powell'.⁶⁷ Similarly no explanation is offered other than 'it is not quite clear at the present time what gave rise to the innovation'.⁶⁸ Statham appears, however, to be in no doubt about the manner in which punishment was administered, claiming that Cadets were mustered, drawn up and 'the culprit was lashed in true man o' war fashion on one side of the deck facing a port, while his comrades were drawn up opposite'.⁶⁹

This pastiche of punishment more common in the eighteenth-century navy is repeated similarly unreferenced by almost all other commentators. Walker notes that an official beating in the Britannia was a much more ceremonial affair than its counterpart at public school' and that 'the culprit was lashed down in true old navy style'.⁷⁰ Pack claims that previous punishment had been found an insufficient deterrent and thus 'Cadets were assembled to witness punishment. The first victim was leashed to the ship's side opposite a port. The beating began'.⁷¹ Penn's account so closely resembles Statham's that they differ by only one word, the former substituting 'messmates' for comrades'.⁷² Lewis tells the same story claiming that 'the culprit was lashed to a grating',⁷³ and that the practice was a deliberate attempt to reproduce the grim conditions of a flogging in a man o' war - a performance he describes as 'pseudo-realism run riot'.⁷⁴

Clearly the absence of any independent verification for these lurid accounts and the high coincidence of their detail demands further investigation, not simply in search of authenticity but because such descriptions have also been the source of wider statements about the nature and quality of naval training of the period. Bonnett for example claims that in the 1860s 'Teaching remained unchanged and the sternest injunction to study was the birch'.⁷⁵ Roskill, examining initially the 1880s but then commenting generally on the training ship system, notes that it was 'based on forcing cadets into a pre-conceived and rigid mould by the application of harsh and even inhuman discipline'.⁷⁶ Allied to arguments that intellectual achievement was not of

importance and that the curriculum was both behind the times and dominated by seamanship,⁷⁷ training in the Britannia has been seen as synonymous with the rigorous ascetism that served officers well in times of battle or hardship.⁷⁸

Yet, despite these views, there is much evidence to suggest that for at least the first 15 years of the training ship system the descriptions and extent of punishment are grossly exaggerated. The general background to these years for example was notable for a transformation in punishment practice in the Royal Navy, with a series of Discipline Acts in the period 1860 to 1866, designed to eradicate the scenes of quarterdeck punishment that the Britannia was supposedly recreating. The caning of both boys and officer cadets was always an exception to legislation restricting corporal punishment in the fleet. However, the overall climate and approach to the discipline of man and juvenile alike was an increasingly sensitive one and unlikely to tolerate the scale of punishment and re-enactment of practices, fast becoming an embarrassment to the Admiralty - particularly in a forum as sensitive to public and press scrutiny as the quarterdeck of the officers' training ship.

Neither is there anything in Powell's background to suggest the slightest eccentricity in this matter. On the 30th October 1865, in common with all commanding officers, he submitted to the Admiralty a resume of his views on the modification of punishment practice in the Service. In this letter he reveals himself to be a vigorous supporter of reform, noting that:

During the last few years many changes most beneficial to the seamen of the Royal Navy have taken place.

Their Lordships have held out great inducements for good conduct.

They have improved the position of our men in pay, provisions and general comfort.

They have gone far to establish a standing Navy and by bringing up boys carefully from their youth, they have created a feeling of attachment to the service, being discharged from it is now considered a most severe punishment.

Whilst the Navy was thus becoming popular with our seamen, their Lordships introduced the Naval Discipline Act and the improved conduct of our men on board their ships shews (sic). I think the wisdom of the measure.⁷⁹

On the subject of corporal punishment Powell noted that the creation of a class of men exempt from corporal punishment 'does not appear to have injured the discipline of the Navy and I believe that it has been the best answer to erroneous statements made on that subject'.⁸⁰

In addition to noting the improving climate in punishment practice and the views of an enlightened commanding officer, it is also possible to analyse for the first time in detail, the exact nature and extent of discipline in the officer's training ship of the period. In the archive of the Britannia Royal Naval College Dartmouth are the records relating to the disciplinary offences committed by Cadets and the subsequent punishment awarded during the period from September 1860 until the demise of the training ship in the late summer of 1905. These comprise some 34 volumes each containing approximately 800 pages and are completed in great detail.

No general analysis of their contents has ever been conducted or cited in previous work to date.

While the style and notation of the 'punishment books' is subject to some variation, the three volumes pertaining to the regimes of Captains Harris, Powell and Randolph are in standard format and kept in accordance with Admiralty Circular 428 of 1860.⁸¹ This is an important factor in establishing the validity of the records, for Circular 428 was one of a series of improving measures during the decade which established in operational warships a Record of Seaman's Conduct Book, in which all punishment was to be recorded. One of the intentions of doing so was to make Captains' actions publically accountable - thus, although it is possible that entries were omitted or falsified, it seems most unlikely, particularly in a ship on the home station and under the constant gaze of the Admiralty.

The punishment book series is not related to the incumbency of a particular commanding officer, but is organised chronologically on the basis of a student's date of entry into the Service - a system that produces a considerable overlap between volumes. For example, although the first of series has the title Record of Conduct 1860-62, it is actually the record of punishment awarded up to date of discharge of the last of the 1862 entry - namely 22nd March 1864. While this means that each student's personal record is easily accessible, it is more difficult to draw conclusions on the overall disciplinary regime of each commanding officer - for every volume reflects the actions of at least two and sometimes three individuals. Thus Volume A1 applies to both Harris and

Powell, A2 to Powell and Randolph and A3 to Powell, Randolph and his successor Captain John Corbett. Nevertheless, the extensive nature of the records does allow the assertions advanced by Statham and others to be examined in some detail.

Offences committed by Cadets during Harris' time are entered in the records in very general terms - 'disobedience', 'repeatedly troublesome', 'constantly disorderly', 'skylarking' etc. Only rarely is an insight given into the exact breach of regulations, as in February 1863 when Cadet Eustace Maude received five days stoppage of leave and two days extra drill for 'throwing coal out of the Mess Room port when told not to do',⁸² or in the same month when Cadet Charles Last was punished for the seemingly innocuous crime of 'Whistling immediately after Divine Service'.⁸³ While the detail of misdemeanours remained unamplified it was unlikely that they were serious, for it was clearly expected that at some time each Cadet would be punished, for an entry appears for every student who joined the ship and it is rare to find an instance of conduct described as 'most exemplary' - i.e. no punishment awarded at any stage during training.

Yet the nature of punishment under Harris seemed mild enough. While the nature and variation was considerable, only limited restriction was involved with examples such as stoppage of leave, extra drill or confinement to a specific part of the ship - 'Seven evenings in the model room' or 'Confined to the middle deck in the evenings' are recurrent examples. Nowhere during Harris' time are there any entries relating to corporal punishment. Cadets who were

Punishments.

No. 1. Punishment.

Is set up at 2 bells in Summer and 3 bells in Winter on duty charge of a ship's barge.

At 3 bells to be taken on the Middle or Upper deck and drilled until 4 bells when they are placed on a particular duty.

Lockpit drill to Breakfast.

Dine on Lockpit drill.

At One o'clock fall into drill until school.

Sea on Lockpit drill.

From 5 until 6 again time to be placed in French study where they are to write out these regulations, the copy to be sent to the Officer of the day.

The study will be appropriated for this purpose in the evening, no one except those under punishment, are to go into it.

Amusing books are not allowed.

After 4 bells to be sent on Middle deck until ordered to turn in.

No. 2. Punishment.

Is taken out at 4 bells in winter, 2 in Summer drill on upper or middle deck at 5 or 3 bells.

At one o'clock to drill until 2.15 P.M.

Leave stopped under Punishment.

Regulations for Lockpit. Mess.

Breakfast.

Sea without milk. Dry bread or Biscuit.

Dinner.

Fresh Beef, or Salt Beef, as the Officer of the day may direct. Potatoes or Peas. No Rice.

Sea.

The same as Breakfast.

The cadets will remain the same time at table as in the mess room.

Cadets can only be reduced to the second class by an Order from the Captain.

No. 1. Punishment will only be given by the Captain or Commanding Officer.

No. 2. Punishment by the Senior Lieutenant for a period not exceeding 4 days.

The Officer of the day can send the cadets, who are unruly or noisy, on the Middle or Upper deck for half an hour.

(Signed) A. Powell

Captain

repeatedly troublesome, undisciplined and who committed a specific serious offence were dismissed from the Service, as in the cases of Cadets John Beresford and Charles McPherson who were discharged by special Admiralty Order in Council in April 1862.⁸⁴ This appeared to be the ultimate disciplinary sanction.

The arrival of Captain Powell in October 1862 saw a modification to the routine which limited the range and variation of penalties and placed punishment into three main categories. Fortunately these regulations, written and signed by Powell have survived in the frontispiece of Record of Conduct, Volume A1 and are reproduced opposite. Three classes of punishment were established. 'Number One' was basically a series of additional duties including early rising '2 Bells in Summer' (0500) and '4 Bells in Winter',⁸⁵ (0600), additional drill during the lunch hour and restricted movement about the ship in the evening when Cadets were confined to the French study and required to copy out the punishment regulations. 'Number Two' punishment was merely a reduced version of the first and 'Number Three' or 'Cockpit Mess' was a special diet which although sparse, still featured three meals per day to be taken apart from the other Cadets in the 'cockpit' or orlop deck of the ship. It will be noted that, as under Harris, there was no mention of any form of corporal punishment in the regulations.

These rules seem to have been applied, unmodified, for almost the first two years of Powell's time, with 'indifferent conduct' continuing to be grounds for

discharge - Cadets Henry Fletcher⁸⁶, Amos Giblings⁸⁷ and C A M Patmore⁸⁸ being dismissed under this category between March and September 1863. Statham's assertion that 'not long after the appointment of Captain Powell the Admiralty decided to introduce corporal punishment for serious offences',⁸⁹ is not supported by the evidence for there is no entry to this effect in almost the first two years of his regime. However, it is correct to note that corporal punishment was introduced under this particular Captain, for a 19th September 1864 Record of Conduct Volume A2 notes that due to 'Repeated Disobedience of Orders' Cadet W G Alexander received 'ten stripes with a birch rod'.⁹⁰

There is no explanation in the records as to why the punishment was introduced and nothing to suggest Admiralty interference in the matter. Neither does it seem to have significantly altered the overall pattern of discipline, for between September 1864 and Powell's departure in April 1866, while other cadets were sometimes similarly punished, the ship's routine remained rooted in the regulations outlined in the Captain's Orders. Even persistent offenders avoided being beaten. In one day in August 1864 Cadet Charles Hicks was listed as dancing at a general muster, killing a cat in a water tank and laughing while being admonished on the quarter deck,⁹¹ yet received only four days Number One Punishment. Cadets Arthur Stackpole and Edward Knipe were reported 26 and 28 times respectively for a series of offences during training, yet were never physically punished. In fact, of the 416 Cadets entered in the punishment books pertaining to Powell's time, only seven were listed as being subject to any corporal punishment, over a two year period.

The organisation of the third volume of punishment records, which covers the whole of Randolph's captaincy, is slightly different. This book is entitled 'Conduct of Cadets' and although locally produced and printed, is a more comprehensive record of each candidate including parental addresses, comments on academic performance and positions in class examinations. A survey of this work reveals that, as under Powell and Harris, the standard punishment remained a combination of extra duties and reduced diet, awarded in two variants 'cockpit mess' or 'defaulters mess'. More serious offences still merited dismissal from the Service but from 1866 this sentence could be suspended and the offender allowed to continue his training under what was termed 'Admiralty probation'. From late 1866 it was also possible to lose seniority for misconduct, as in the case of Cadet Duncan Ross who in December of that year breached regulations by 'entering a farmhouse' and duly lost six months time for advancement.⁹²

The principal characteristic of the punishment records in the Randolph era however, is the increase in both severity and frequency of physical punishment. From seven instances in almost four years under Powell, beatings grew to an average of one per month in term time in Randolph's first half year. The awards also became more severe with two Cadets, one of whom was subsequently discharged from the Service, receiving 24 strokes of the birch each in October 1866 for separate offences of stealing.⁹³ In the following year came the incident that attracted wider attention to the ship's punishment practice, when several Cadets were birched for bullying. Statham outlines this only in general terms noting that it took place in Spring 1867, and that 'four or

five cadets' were involved.⁹⁴ The records show the date to be the 12th of February of that year and those involved were Cadets Alfred Paget, Richard Mansergh, William Elliot and John Bennett who each received 24 strokes for combining to 'bully and attack some Junior Cadets and throwing one, Mr E J White against the Pumps so violently as to inflict injury'.⁹⁵

The punishment of these young men led to a question in the House of Commons on 25th July 1867, when Michael Bass, Liberal member for Derby, rose to ask the First Lord whether he had made 'further inquiry respecting the mode of punishment of Cadets on board the Britannia',⁹⁶ and that 'it was alleged from many quarters that excessive cruelty was practised on board that ship'.⁹⁷ How the matter reached this stage is not entirely clear. Bass was an infrequent speaker and was noted, not for an interest in naval matters, but rather a concern with working-class welfare.⁹⁸ However, it is probably relevant that he had been a fellow Liberal MP and parliamentary colleague for almost 20 years of Lord Alfred Paget, the father of one of those punished. There was also a politico/naval connection, for at the time of the incident Cadet Paget's uncle was Commander in Chief of the Mediterranean Station and had been Secretary to the Admiralty Board in the previous Liberal administration 1859-66.

Whatever the substance of this connection the question was clearly designed to cause maximum discomfort to the new Tory First Lord, H T L Corry, and Bass pressed his advantage by asking if

when a cadet was punished his arms and legs were tied to ring bolts so that he could not move and that

he was flogged with a birch boom which had previously been steeped in water to make it more pliant, that fifteen cuts were inflicted with it on the back and that doctors invariably attended.⁹⁹

These accusations were vehemently denied, with Corry asserting that in view of the statement a detailed enquiry into punishment on board Britannia had been undertaken and 'the result was a complete denial that the punishment of cadets was accompanied by the cruelty described',¹⁰⁰ and far from being chastised with a birch broom the punishment was 'precisely similar to that used at schools'.¹⁰¹ Corry further emphatically rejected the allegation that Cadets were tied down and there was a 'complete denial of any such cruelty as had been alleged'.¹⁰² The matter was closed with the announcement that the Admiralty 'having taken the whole subject into consideration have thought it desirable that the punishment of flogging on board the Britannia should be discontinued'.¹⁰³

Thus came to a close the relatively short period in Britannia's early history when corporal punishment featured in the training routine. In the first seven years it was unknown and was thence used only sparingly in the two years preceding the arrival of Randolph in April 1866. Thereafter, while its frequency and severity did increase, this particular period lasted less than 18 months and following cessation in July 1867, it was almost six years before the practice reappeared.¹⁰⁴ Thus from the inception of the training ship in 1857 until December 1872 there was only one short period identified with a particular Captain when corporal punishment could be said to be a regular feature of the ship's routine.

There can be little doubt that given the firm foundations of pastoral care established by Powell and Harris, that the choice of Randolph as the third Captain was unfortunate, and he was quickly reappointed in the wake of the parliamentary question. Nevertheless, it must be stressed that there is nothing in reliable personal memoirs or the punishment records to support the allegations made in the House of Commons in July 1867. Indeed it is difficult to see this parliamentary episode as much more than mischief making by a Liberal member who was an infrequent speaker, with no previous naval interest, on behalf of the equally political family of one of the Cadets involved. This impression is reinforced when it is borne in mind that the corporal punishment of which he complained was actually introduced in 1864 and superintended by a Liberal Admiralty Board for two years without comment or query.

The basis of the lurid accounts of punishment routine related by Statham and repeated by others is unclear. While they cannot be completely dismissed, there seems little evidence to support the picture of Cadets tied to gunports or seized to gratings and certainly nothing in the punishment book series to verify the story. What the official records do confirm is that Statham was not an eye witness to the events he describes, for he completed his training on 20 March 1863,¹⁰⁵ fully 18 months before the introduction of the birch into HMS Britannia. We are thus left with a description based on hearsay or unspecified memoir which, if accepted, would mean that in denying the allegations, the First Lord had quite deliberately misled the House of Commons.

Curriculum Development

The new commanding officer appointed in September 1867 was Captain John Corbett. He had first seen active service off the coast of Syria in 1840 and had been present at the bombardment of Ac're. He passed his examination in 1843 and was promoted Lieutenant three years later, subsequently serving in the first rate HMS Queen and as Senior Lieutenant of the gunnery school in HMS Excellent. He was promoted Captain in 1857 and commanded the flagship HMS Hastings at Queenstown from June 1864. Immediately prior to his appointment to the Britannia he had commanded the ironclad HMS Black Prince, also serving as a flagship, from 1866 to 1867. His appointment represented a return to the traditions of pastoral care established under Harris and Powell, with his First Lieutenant noting that he had been deliberately appointed to the command with 'a view to establishing a milder rule than prevailed in Captain Randolph's time'.¹⁰⁶ He was to remain almost four years until August 1871 and superintend considerable changes.

The first of these related to the syllabus which, since the inception of the training ship, had been both taught and examined by the ship's instructional staff. The original course had been outlined in Circular 288 of 1857¹⁰⁷ and was divided between elements of practical seamanship and academic studies, which were largely mathematical in nature. The list included Arithmetic, Algebra, Geometry, Plane and Spherical Trigonometry, Navigation, French and various explanatory lectures on astronomy, mechanics and hydrostatics.¹⁰⁸

The Circular did not specify the amount of time or weighting given to each, but merely required the Master of the Ship to endorse proficiency in seamanship and the Naval Instructor to certify 'the Candidates attention to the various branches of his education as well as his general conduct whilst on board'.¹⁰⁹ It is known that while the training ship was at Portsmouth alternative days were devoted to academic and seamanship instruction,¹¹⁰ and perhaps for that reason it has been assumed that the latter had equal prominence. Temple Patterson takes this view, arguing that the curriculum was 'behind the times being entirely geared to the sailing ship era that was passing away and ignoring the ungentlemanly and unwelcome intrusion of steam'.¹¹¹ Walker supports this, noting that 'the curriculum at this time consisted almost entirely of navigation and seamanship'.¹¹²

Fortunately access to original records makes it possible for the first time to examine these assertions in more detail, via the Record of Passing Certificates held at the Royal Naval College Dartmouth. This document details the diligence, conduct, examination results by subject and the class of certificate awarded to every Cadet who passed out of the training ship from December 1862 until midsummer 1878. As such it is not a detailed explanation of the syllabus, but if the premise is accepted that what was examined was also taught and that the greater the weighting of the subject in the exam, the more it featured in the syllabus, then this record is the most detailed analysis of the training routine in HMS Britannia available.

This evidence suggests that, throughout the period to December 1870, the original central division between academic work and seamanship envisaged in Circular 288 was maintained and, although individual subjects and their appropriate weighting were subject to fluctuation, the total marks available for the two areas of work remained constant. The most immediate observation on this general organisation, particularly in the light of previous comment about the syllabus, is that at no stage between 1862 and 1870 did seamanship marks ever account for more than one third of the theoretical maximum - the division being 2000 marks for academic work and 1000 for seamanship. Furthermore within the former area, the total mark for the six subjects classified as 'mathematics' - namely Arithmetic, Algebra, Euclid, Plane and Spherical Trigonometry and Navigation - was always greater than the seamanship total.

Thus it is apparent that from the date when records were initiated, the course in the Britannia was predominantly academic, with a strong emphasis on mathematical skills. The first examination schedule shows 14 standard subjects which, apart from the six mathematical topics already mentioned, included Geography, English History, Scripture History, French, Drawing, Construction of Charts, Instruments and English Composition. Reading and Writing were also examined as supplementary subjects, and despite assertions to the contrary, 100 marks were awarded for an examination in 'Steam'.¹¹³ While the choice of standard subjects remained constant, in accordance with the provisions of

Examination Mark Profiles HMS BRITANNIA

<u>December 1862</u>		<u>July 1867</u>		<u>Change</u>	<u>Notes</u>
Arithmetic	150	Arithmetic	150		
Algebra	150	Algebra	150		
Euclid	150	Euclid	200	+50	
Plane Trigonometry	200	Plane Trigonometry	150	-50	
Spherical Trigonometry	100	Spherical Trigonometry	150	+50	
Navigation	300	Navigation	300		
Geography	150	Geography	100		
English History	100	English History	50	-50	
Scripture History	100	Scripture History	50	-50	
French	100	French	200	+100	
Drawing	100	Drawing	100		
Construction and use of Charts	50	Construction and use of Charts	50		
Instruments	100	Instruments	150	+50	
English Composition	50	English Composition	100	+50	Now incorporates 'Writing and Reading'
Writing	50	Analytical Trigonometry	100		New subject from April 1867
Reading	50				
Steam	100				Steam deleted 1864
Marks obtained in Study	2,000	Marks obtained in Study	2,000		
Marks obtained in Seamanship	1,000	Marks obtained in Seamanship	1,000		

Circular 288, the supplementary topics were subject to change without explanation. 'Steam' for example was examined in December 1862, dropped in September 1863, reinstated the following November and subsequently replaced by 'extra navigation' in March 1864. This, in turn, became a subject simply described as 'extra questions' in April 1865. Writing and Spelling were subject to similar fluctuation and were eventually incorporated under 'English Composition' the following year.

The weighting of subjects was also subject to constant revision although the mathematical group consistently dominated the mark profile. No particular trend can be identified in the shifting balance up to 1870, although French seemed to grow in importance, meriting 100 marks in December 1862, 150 in June 1864 and 200 by March the following year. As the course was both taught and examined by the same staff without external verification or interference, the shifting emphasis would seem to be due to the individual preferences of the Naval Instructors involved. A comparison of examination profiles for December 1862 and July 1867 appears opposite.

It will be seen that, assuming the examination subjects and weightings were a reliable indicator of the nature of the course, the emphasis in young officer training was principally academic - as one might expect for boys between 12 and 14 years of age. Clearly seamanship was important, although the idea that it dominated all aspects of training is misplaced. Indeed from 1870 the subject ceased to be formally

examined and the 1000 marks allocated were deleted from the record.¹¹⁴ While elements were still taught in Britannia after this date, the bulk of seamanship instruction was shifted into the seagoing training ship where the practical and theoretical aspects of the subject were more compatible.

Apart from a major imbalance in favour of mathematical subjects the principal shortcoming of the academic course was in the area of organisation and validation. Providing the general stipulations of Circular 288 were met, the instructional staff appear to have had the power to teach, examine and amend subjects and their weightings, without any form of external reference or control. In the early years this situation seems to have passed without comment, but in 1862 the Army and Navy Gazette, while unstinting in praise of all in the Britannia, expressed surprise that Cadets should be examined by their own teachers - a system it claimed that made instructors 'auditors of their own accounts'.¹¹⁵ The matter arose again in 1867 when complaints were raised within the Admiralty that 'examiners know too much of the cadets; that they know more of them personally than was consistent with their position as examiners'.¹¹⁶ Although there was no direct accusation of complicity or unfairness the possibility was suggested that 'boys were passed out of the Britannia before by masters in accordance with what they knew of the boys rather than by the actual acquirements'.¹¹⁷

Joseph Woolley.

To deflect this sort of criticism, the First Lord, H T L Corry directed that from September 1868 all academic examinations in the ship would be made subject to the scrutiny and moderation of external authority, in the form of the Director of Education for the Admiralty. This post had been founded four years previously but up to this point had no responsibility for officer training. Nevertheless it was a most significant advance in the overall development of naval education and must be examined in some detail. The first and only incumbent during the nineteenth-century was Revd Joseph Woolley who took up the appointment in July 1864.¹¹⁸ Despite the fact that the post was extant for almost ten years and that the Director either gave evidence to, or was a member of, every committee to examine the subject over the period, the position has received almost no critical attention. No mention of the post, for example, appears in the seven volume official history of the Service, and the Dictionary of National Biography fails to mention Woolley's contribution in this area. Similarly, while Sullivan claims the appointment represented 'the most convincing manifestation of genuine Admiralty concern for educational efficiency',¹¹⁹ to date, he devotes less than 800 words in total to a consideration of Woolley's work. Lloyd, examining the progress of higher education in the Service persistently refers to the 'Director of Education and Dr Woolley',¹²⁰ when in fact they were one and the same.

The reason for this reticence and uncertainty is not clear, for even by the time of his appointment Woolley's

connection with the Service was both long and distinguished. Like James Inman and T J Main, respectively first and second Professors at the Royal Naval College Portsmouth, Woolley was a product of St John's College Cambridge where he had graduated as third Wrangler in 1839, and his academic interests were similarly rooted in mathematics and naval architecture. He had entered Admiralty employment as the first Principal of the Central School of Mathematics and Naval Construction founded in Portsmouth Dockyard in 1848.

The school occupied the buildings of the original School of Naval Architecture erected in 1816¹²¹ and was thus known colloquially as 'the second school'. It opened as the sequel to the system of dockyard schools for the education of apprentices which had been established in 1843. From these schools at Portsmouth, Devonport, Chatham, Sheerness, Pembroke, Deptford and Woolwich outstanding pupils were chosen to complete their education at the Central or 'second school', where they followed a four year course of mathematics, naval architecture, chemistry and practical skills. As with the original School of Naval Architecture there were close links with the Royal Naval College - Professor Main leading the mathematics teaching, and corrosion expert W D Hay¹²² teaching chemistry and experimental philosophy. Woolley, in addition to his duties as Principal, also taught mathematics and religion.

The Central or Second school opened on 17th June 1848 with eight pupils sent from the various dockyard schools. Woolley imposed a rigorous routine with instruction

commencing before seven in the mornings and private study expected in the library until after ten in the evening. It was noted that the Principal completely identified himself with the life and study of his pupils, and that he was responsible not only for their professional progress, but also for their moral and religious education as well.¹²³ In 1850 Woolley published The Elements of Descriptive Geometry which was used as a standard text in the school and was for many years the primary work on the processes of 'laying off' ships on the mould loft floor.

There can be little doubt of the high standards imparted by the school or the success of its pupils, two of whom, E J Reed and Nathaniel Barnaby, were to reach the pinnacle of the profession as Chief Constructor of the Navy and Director of Naval Construction respectively. Student entry, however, was highly selective and numbers attending the school remained low, with the theoretical maximum of 16 pupils closely applied and the entry suspended altogether in 1850 and 1852. It is known that as late as August that year the government were content with the progress of the school,¹²⁴ but a change of administration in late December brought the return as First Lord, of the old enemy of scientific branch expenditure in the Service, Sir James R G Graham.

Graham, who had been responsible for the closure of the first school in 1832 and for the demise of the Royal Naval College as an initial training establishment, was a keen supporter of the development of practical as opposed to theoretical skills, and the Central School with its already established reputation for producing 'Euclid boys'

was an early and easy target. In a tone reminiscent of his announcement closing the original school 30 years previously, Graham informed the House of Commons on 18th February 1853 that the second school would cease on the grounds of its 'not having been found to answer its purpose'.¹²⁵ Quite what the specific shortcoming of the institution had been was not made clear and its demise was a component in a series of reductions in the scientific vote for that year. The school remained open until the four pupils of the 1851 entry had completed the course with the last, Samuel Willcocks, departing in February 1855.

The First Lord was keen to assure the House that the reduction in the scientific estimates would not impede the development of education in either the dockyard or HM Ships. To this end he announced that Woolley would remain in Admiralty employment at Portsmouth where he was charged with:

the general supervision of the Dockyard School there; giving the Surveyor of the Navy mathematical suggestions in the construction of ships; selecting masters for the naval service from the Upper School at Greenwich; and supervising the education of young gentlemen on HM Ships.¹²⁶

He was given the title 'Inspector of Dockyard Schools' and commenced his duties on 1 October 1853. Under Woolley's guidance the number and value of prizes was increased and the standard of entry was raised, particularly after 1857 when apprentice candidates were examined by the Civil Service commissioners.

In 1858 Woolley was appointed an assistant commissioner to the Newcastle Commission investigating the state of popular education in England. His duties were to examine the provision of education in the seaman's harbour training ships at Portsmouth, to interview naval officers personally and by letter on the subject of naval education, and to comment on the standards of seaman's schoolmasters serving in the fleet. He appears to have approached these tasks assiduously and it is clear that his established ten-year association with the Admiralty did little to temper his view about the poor state of their educational arrangements.

While generally complimentary about the voluntary efforts of some senior officers to organise classes for boys and men aboard their ships, he was scathing about official Admiralty provision, and in particular about the competence of the seaman's schoolmasters, who he felt in 1858 were 'generally without method and deficient in those qualities calculated to produce a beneficial effect moral or intellectual on a ship's company'.¹²⁷ A year later the Commissioners quoted Woolley's view that:

it is hopeless to expect that either men or boys serving on board Her Majesty's ships will do anything effectively towards supplying the defects of early education, and acquiring the power and taste to spend a leisure half hour rationally until, as in the army, a much higher class of instructors has been entrusted with the duty of directing their efforts in this direction.¹²⁸

As the principal naval inspector there can be little doubt that Woolley's findings concerning inefficiency, irregularity of attendance and incompetent staff influenced

the Commissioners' two principal conclusions namely that 'The organisation is inferior and the Admiralty does not appear to take an equal interest with the war office in promoting it',¹²⁹ and that 'the necessity of education for the Navy is acknowledged but little earnestness is displayed in carrying it out'.¹³⁰

In January 1860 Woolley was appointed a Vice President of the new Institution of Naval Architects and, with fellow committee member John Scott Russell soon directed the purposes of the new learned society towards education. The result was a proposal to found yet another School of Naval Architecture (since known as 'the third school') which was instituted at South Kensington under the Science and Art Department in cooperation with the Council on Education. The Admiralty met the initial expense and the prime source of students was the Dockyard school system, although entry was not confined to those officially sponsored. The institution opened in November 1864 as the Royal School of Naval Architecture and Marine Engineering with Joseph Woolley as Director of Studies and Inspector General.

Woolley held the South Kensington post until the School was amalgamated into the Royal Naval College Greenwich in 1873, but additionally in July 1864 he accepted the newly created post of Director of Education for the Admiralty. The Order in Council of the 20th of that month noted that he should:

inspect periodically the educational establishments in Your Majesty's dockyards, in ships at the home ports and at the divisions of Royal Marines, who should examine candidates for admission into the Royal School of Naval Architecture, hold periodic

examinations of engineers and engineer students and further advise us upon all questions of education which we may from time to time think fit to refer to him.¹³¹

The appointment was to date from the first of the month and salary and allowances amounting to £940 per annum were to be paid for the post.

It will be seen that the duties outlined in the Order in Council were largely an acknowledgment of the work that Woolley had been undertaking both at South Kensington, as a Government Inspector, and as an examiner for the Science and Art Department. The requirement to examine engineers was similarly already established in a Select Committee Report of the previous year.¹³² Thus the title Director of Education for the Admiralty was, at least initially, a formal recognition of existing arrangements, rather than the creation of a new separate area of authority.

The appointment was, nevertheless, a significant one, for Woolley in his various connections with the Admiralty since 1848 had shown himself to be a man of integrity and independence, more than willing to criticise the level and nature of educational provision in the Service. This was evident both in his work for the Newcastle Commission and in his long campaign, in the wake of the closure of the Central School and in the face of opposition from the Surveyor of the Navy's department, to establish a school of naval architecture. Thus while the appointment of Director of Education was to some extent a reflection of the status quo, the choice of Woolley to undertake the task was an acknowledgement of a requirement for criticality and independence.

The Record of Passing Certificates reveals that the first Britannia examinations to be subject to external supervision took place on 28th July 1868 in the presence of the Director of Education assisted by Naval Instructors J H Lang and J R Harboard.¹³³ What their exact role constituted is unclear, however it apparently required the physical presence of Dr Woolley on board the ship and, despite the fact that from 1869 some 24 days per two year training cycle were directed to exams and that the final assessment consisted of at least 14 separate papers, Woolley was present on every occasion but one, until his retirement in December 1873.¹³⁴

The appointment of an external moderator for the Britannia examinations was the last significant action pertaining to naval education by the Corry administration, for in December 1868 the Liberals were returned to power, with a reforming and controversial First Lord in H C E Childers, who was to make significant changes in both initial training and higher education in the Service. Thus the end of 1868, or more accurately the 7th January 1869 when the new Board's first Circular was issued,¹³⁵ marked the end of a distinct phase in the evolution of young officers' education that had started with the decision to move the training ship in early 1862.

Conclusion

This six year period may be seen as one of modest general progress. There can be little doubt that by 1868 the Britannia, moored in the physically and morally secure surroundings of the River Dart, with extra space provided in Hindustan and the establishment of shoreside medical and

recreational facilities, represented a considerable advance on her original situation at the head of Haslar Creek. Similarly, although it was only at an embryonic stage, the principle of external educational supervision was established and the public accountability of the ship's disciplinary procedures recognised, during the period. While none of these changes was particularly substantial and some, such as the decision to move to Portland seemed shortsighted, there can be no doubt of the Admiralty's desire, within clearly defined limits, to improve the nature and quality of officer training.

The events of these years have received very little previous coverage and existing comment is characterised by selectivity and inadequate analysis. Statham, the principal authority, has little to say of substance for the years 1862-68 and his narrative is largely concerned with ephemera. His failure to discuss the question of health and habitability aboard the ship - particularly in the light of Admiralty and press concern is a serious omission. Having personally lived on the ship for 15 months during this period it is inconceivable that he could have been ignorant of the incidence of ill health, and to chronicle the arrival of the Britannia at Dartmouth for example, without mentioning that she was in the grip of a scarlet fever epidemic which resulted in the vessel finally being evacuated, must question the overall validity of his account.

Conversely, there must be some scepticism about the accuracy of the detail that he does include, particularly as it pertains to punishment practice. Despite the eye witness style of narrative, a comparison of Statham's

service details and the ship's punishment books reveals that he could never have witnessed the scene he describes. It is especially unfortunate that his account should subsequently have been taken, uncorroborated, by at least four other commentators to be an accurate portrayal of typical punishment practice in the ship. A broader examination of the history of Britannia in these years shows that, despite the assumptions of rigorous asceticism and harsh discipline, in fact corporal punishment was extremely rare and that while living conditions were spartan, the training was characterised by a strong sense of pastoral care.

Scrutiny of original records also dispels some of the myths about the nature of the syllabus in the Britannia, particularly the view that it was dominated by the acquisition of seamanship skills. Why this view should have prevailed is unclear, for it was virtually axiomatic within the Service that seamanship was best taught in seagoing ships - a point emphasised by the withdrawal of formal seamanship training from the Britannia syllabus in 1869. While there can be no doubt that the scheme of study scarcely reflected a satisfactory balance of subjects and that History, Geography and English were largely ignored, it was essentially an academic course - or at least a pre-vocational course in the guise of academic education. The preponderance of mathematics was thus directly related to the work an officer would undertake in command of a warship. Although it has been suggested that intellectual accomplishments always came a bad second to athletics,¹³⁶ the records demonstrate that to complete the Britannia

course, academic ability, in particular skill in mathematics, was the essential quality required.

The establishment of the post of Director of Education for the Admiralty and his connection with the Britannia during the period are of considerable significance and have largely been misinterpreted or ignored. Only Statham amongst published commentators mentions the post and he confines comment to a factual account of Woolley's evidence to the Rice Committee in 1874. Sullivan, although he devotes similar scant attention to the topic, draws the conclusion that the post was merely a consultatory one and that Woolley 'was not able to initiate policy which function is implicit in the title Director but would merely give his opinion when asked for it'.¹³⁷ Missing the 1868 connection between the Britannia and the Director of Education, he then argues that the lack of reference to officer education in the rubric of the appointment, implied that the Director had little influence in this sphere.¹³⁸

The basis for this argument is particularly weak, for it is derived solely from Woolley's evidence to the Select Committee on Scientific Instruction in May 1868, which Sullivan summarises as:

Woolley's evidence before the Select Committee confirms the consultatory nature of the post. When asked if he had anything to do with the education of cadets he replied that matters concerning them were referred to him if the Admiralty pleased. In answer to further questions he stated that he did not inspect the cadets, except for a special visit made on the Admiralty's order the previous November...¹³⁹

While it cannot be denied that the impression given here was of peripheral contact with officer education, the key point about this evidence was that it was given at a stage when the post of Director of Education was less than four years old and still in the process of development. To draw conclusions on the overall nature of the role at this stage is premature, for just three months later the examination link with the Britannia was made, and in October 1869 Woolley was appointed to head a committee 'to consider and draw up a scheme of education for the naval and navigating cadets'.¹⁴⁰ This report formed the basis of the new regulations for entry and education of Naval Cadets published in January 1870,¹⁴¹ and this committee was responsible for the new syllabus introduced on the 15th of January of that year.¹⁴² From this date until his retirement Woolley was either a member of, or gave evidence to, every enquiry into the subject of officer education, including the investigation of higher education by the Shadwell Committee of 1870 and the major enquiry into Cadets' education by the committee headed by Rear Admiral E B Rice in 1875.

Thus, far from being 'consulted as the Admiralty pleased', Woolley was at the centre of educational activity, and Sullivan's assessment based on less than four years of a post that lasted a decade is a misplaced one. Perhaps, more importantly, Sullivan's failure to take into account Woolley's work after 1868 means that not only does he miss the connection between the Director of Education and the Britannia but he also fails to recognise

that this external input was the start of a process which attempted to integrate naval education with the preparatory and public schools from whence the Cadet entry was drawn. This included, from 1869, the reintroduction of Latin into the entrance examination, the scrapping of seamanship from the Britannia syllabus, and the recruitment of a public schoolmaster with no previous Service experience to act as Chief Naval Instructor in the ship. The culmination of these measures was the recommendation of the Rice Committee of 1875 that 'it would be desirable to substitute for the two year course on board the Britannia, a three year course at a college on shore'.¹⁴³

The theme of this chapter has been one of modest general advance in the development of initial naval education both in terms of the syllabus and the environment in which it was taught. Yet it may be argued, as Bonnet has, that this activity stood in stark contrast to the rapid progress of education in the universities, public schools and working men's institutes ashore during the same period¹⁴⁴. Similarly, considering the Royal Navy was the largest, most technologically advanced naval service in the world acclaimed, as Clowes has suggested as the 'Mother of Navies',¹⁴⁵ it may also be observed that its officer education system compared unfavourably with major competitors such as France, Russia and the United States, all of whom entered students at a later age, and gave at least some access to shore based institutions during training.

Clearly arguments such as these help to emphasise the relative nature of the progress. There can be no doubt that there were many in the Service, including those of high rank, who would have liked to have seen a more radical and enlightened approach to education and training. Similarly, had the financial climate been more favourable and the political position of the First Lord, both in relation to his fellow cabinet members and the Naval Lords, been a more autonomous one, then rapid progress would undoubtedly have followed. It should also be pointed out that, in addition to the persistent demands for reductions in naval expenditure, the years 1862-68 presented naval policy makers with a series of pressures in areas as wide ranging as ship design, manpower policy, the redistribution of foreign squadrons and the usual requests for action from the foreign and colonial offices. On this crowded agenda officer training and education had to take its place, and it is indicative of both the plethora of issues and the acute financial background that even measures which had the First Lord's personal support, such as the establishment of a naval college, did not come to fruition in these years.

Perhaps the most powerful argument to emphasise progress in officer education up to 1868 is to contrast the situation in this year with the state of training just over a decade before. Prior to 1857 no formalised training existed and young men entered the Service solely via the patronage of senior officers, with a subsequent lack of bureaucratic control over educational standards and numbers involved. Eleven years later the Admiralty

was winning the battle against patronage, and formal entry and education, via the Britannia, was mandatory for all, with failure to achieve minimum educational standards penalised by discharge from the Service. While the physical conditions in the old hulks were unsatisfactory and compared unfavourably with shoreside institutions, the regime in the ship was, for the majority of the period, an enlightened one. Safe in the River Dart, with medical and recreational facilities established ashore and her educational practice subject to external supervision, the Britannia in 1868 represented a significant advance over the system she replaced a little over a decade earlier.

HMS Britannia - Previous Health Record

The choice of the Britannia as a training ship was perhaps a surprising one given her previous health record. While almost all published work cites her previous career as the flagship of Admiral Dundas at the bombardment of Sevastopol, her main claim to fame prior to the training ship era was less glorious. In July and August 1854 she was the victim of a cholera epidemic which according to the Navy's chief medical officer

for the suddenness of its advent, the tempest violence with which it raged and the wreck it left behind, has surpassed anything of the kind in the annals of the service.¹

Out of a complement of 995 some 625 intestinal cases were reported of which 229 were distinguished as cholera and of these 139 died. The remaining crew were transferred to other ships, where only 22 further cases were reported, and her decks which were described as 'the laboratory of pest poisons', were washed down with chloride of zinc and the whole ship fumigated. Milnroy, a leading public health expert of the day, described the epidemic as 'the most memorable instance on record of the effects of defective ventilation' and while this diagnosis was incorrect, the fact that it was accepted at the time, would seem to make the choice of the Britannia as a training ship a surprising one.

It is also pertinent to note that HMS Trafalgar the second most seriously affected ship in the 1854 cholera outbreak, and second again to the Britannia in the 1862 statistics for primary fever in the home fleet, was also chosen as a training ship in 1870 by which time she was almost 40 years old. Given that, by their own admission, medical staff knew little about the transmission of infectious diseases in warships, the choice of these particular vessels for training young officers seems remarkable.

1. C C Lloyd and Medicine and the Navy Vol IV p143
J L S Coulter (1963)

Chapter Three - Notes

1. R Harris A Historical Sketch of the General Means Adopted for the Education of Naval Officers (1863) p54
2. ibid
3. C Lloyd and J L S Coulter Medicine and the Navy Vol 4. (1963) p217
4. J Winton The Naval Heritage of Portsmouth (1989) p8
5. ibid p114
6. E L Rasor Reform in the Royal Navy (1976) p87
7. C Lloyd and J L S Coulter op cit p198
8. ibid
9. Statistical Report of the Health of the Navy for 1861 p19
10. Naval Chronicle 1st October 1861 p110
11. ibid
12. Naval Chronicle 1st December 1861 p136
13. Army and Navy Gazette 8th February 1862 p89
14. Committee on the System of Training Cadets on Board HMS Britannia (The Rice Report) C1154 (1875) para 1828
15. Naval Chronicle 1st December 1861 p136
16. Statistical Report of the Health of the Navy for 1862 p2
17. ibid
18. E P Statham The Story of the Britannia (1904) p66
19. Regulations for Punishment in HMS Britannia - Record of Conduct Book A1
20. R Harris op cit p56
21. ibid
22. Statistical Report 1862 op cit p2
23. R Harris op cit p50
24. Naval Chronicle 1st April 1862 p39
25. Army and Navy Gazette 22nd November 1862 p749
26. ibid

Chapter Three - Notes (continued)

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| 27. | <u>Army and Navy Gazette</u> | 6th December 1862 | p773 |
| 28. | | ibid | |
| 29. | <u>Statistical Report 1862</u> | op cit | p3 |
| 30. | C Lloyd and
J L S Coulter | op cit | p269 |
| 31. | <u>Statistical Report 1862</u> | op cit | p4 |
| 32. | <u>Statistical Report of the Health of the Navy 1863</u> | | p9 |
| 33. | Rice (1875) | op cit | pa1828 |
| 34. | | vide Chapter One | |
| 35. | Rice (1875) | op cit | pa1828 |
| 36. | E P Statham | op cit | p71 |
| 37. | <u>Statistical Report 1863</u> | op cit | p9 |
| 38. | | ibid | |
| 39. | <u>Statistical Report 1863</u> | op cit | pl0 |
| 40. | | ibid | |
| 41. | P Scott | <u>50 Years in the Royal Navy (1919)</u> | p4 |
| 42. | C Lloyd and
J L S Coulter | op cit | p85 |
| 43. | R Harris | op cit | |
| 44. | | ibid | pvi/vii |
| 45. | | ibid | p74 |
| 46. | <u>Army and Navy Gazette</u> | 22nd November 1862 | p749 |
| 47. | E P Statham | op cit | p74 |
| 48. | | ibid | |
| 49. | Rice (1875) | op cit | pa 11 |
| 50. | | ibid | pa 13 |
| 51. | <u>Navy List</u> | (correct to 20 March 1860) | p241 |
| 52. | <u>Navy List</u> | (correct to 20 December 1865) | p293 |
| 53. | | vide Chapter One | |
| 54. | <u>Navy List</u> | (correct to 20 December 1865) | pa ix |

Chapter Three - Notes (continued)

55. Army and Navy Gazette 26th March 1864 p201
56. W L Clowes The Royal Navy. A History Vol VII (1903) p12
57. vide Chapter One
58. Naval Estimates 1864/65 p
59. Naval Chronicle 1st October 1861 p110
60. R Harris op cit p57
61. E P Statham op cit p74
62. W L Clowes op cit Vol VI p330
63. S Bonnet The Price of Admiralty (1968) p126
64. E P Statham op cit p74
65. ibid
66. ibid
67. ibid
68. ibid
69. ibid
70. C F Walker Young Gentlemen. The Story of Midshipmen(1938)p143
71. S W C Pack Britannia at Dartmouth (1966) p36
72. G Penn Snotty. The Story of the Midshipman (1957)p72
73. M A Lewis The Navy in Transition (1965) p112
74. ibid
75. S Bonnet op cit p126
76. S W Roskill Earl Beatty. The Last Naval Hero(1981)(New York)pp21/2.
77. A Temple Patterson Jellicoe. A Biography (1969) p16
78. S W Roskill op cit
79. Reports and Opinions of Officers on the Acts of Parliament and Admiralty Regulations for Maintaining Discipline and Good Order in the Fleet (1867) pp10/11
80. ibid
81. Navy List (correct to 20 December 1860) p285
82. Record of Conduct Book A1 op cit p201

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- | | | |
|------|---|------------------|
| 83. | ibid | p285 |
| 84. | ibid | p264 |
| 85. | <u>Record of Conduct Book A1</u> op cit | |
| 86. | ibid | p267 |
| 87. | ibid | p213 |
| 88. | ibid | p249 |
| 89. | E P Statham op cit | p70 |
| 90. | <u>Record of Conduct Book A2</u> op cit | p62 |
| 91. | ibid | pl13 |
| 92. | <u>Record of Conduct Book A3</u> op cit | p532 |
| 93. | ibid | pp659/691 |
| 94. | E P Statham op cit | p75 |
| 95. | <u>Record of Conduct Book A3</u> op cit | p605 |
| 96. | <u>Hansard</u> 3rd Series Vol CLXXXIX | Col 82 |
| 97. | ibid | |
| 98. | <u>The Dictionary of National Biography</u> | |
| 99. | <u>Hansard</u> | |
| 100. | ibid | |
| 101. | ibid | |
| 102. | ibid | |
| 103. | ibid | |
| 104. | <u>Record of Conduct Book A4</u> op cit | p312 |
| 105. | <u>Record of Conduct Book A1</u> op cit | p176 |
| 106. | E P Statham op cit | p87 |
| 107. | Admiralty Order in Council 288 23 February 1857 | <u>ADM 7/890</u> |
| 108. | ibid | |
| 109. | ibid | |
| 110. | vide Chapter One | p23 |
| 111. | A Temple Patterson op cit | pl6 |

Chapter Three - Notes (continued)

- | | | | |
|------|--|---|------------------------|
| 112. | C F Walker | op cit | p39 |
| 113. | <u>Record of Passing Certificates 1862-68 - HMS Britannia</u> | | |
| 114. | | ibid | |
| 115. | <u>Army and Navy Gazette</u> | 8th February 1862 | p89 |
| 116. | Rice (1875) | op cit | pa 2186 |
| 117. | | ibid | pa 2191 |
| 118. | Admiralty Order in Council | 20 July 1864 | <u>ADM 1/5913</u> |
| 119. | F B Sullivan | The Evolution and Development of Education in the Royal Navy <u>Reading PhD</u> (1974) | p131 |
| 120. | C Lloyd | The Royal Naval Colleges at Portsmouth and Greenwich <u>Mariners Mirror</u> Vol 2 (1966) | p149 |
| 121. | | vide Chapter Two | |
| 122. | | ibid | p33 |
| 123. | A W Johns | The Dockyard Schools and the Second School of Naval Architecture <u>Engineering</u> 25th January 1929 | p96 |
| 124. | | ibid | 8th February 1929 p156 |
| 125. | D K Brown | <u>A Century of Ship Construction</u> (1983) | p34 |
| 126. | A W Johns | op cit | 8th February 1929 p156 |
| 127. | <u>The State of Popular Education in England</u>
Report of the Commissioners Vol 1 (1861) | | p431 |
| 128. | | ibid | p431 |
| 129. | | ibid | p428 |
| 130. | | ibid | p428 |
| 131. | Admiralty Order in Council | 9 July 1864 | ADM1/5913 |
| 132. | G Penn | <u>Up Funnel, Down Screw!</u> (1955) | p88 |
| 133. | <u>Record of Passing Certificates</u> | op cit | |
| 134. | Rice (1875) | | pa2365 |
| 135. | N A M Rodger | 'The Dark Ages of the Admiralty 1869-85 Part One'
<u>Mariners Mirror</u> Vol 61 No 4 (1975) | |
| 136. | S W Roskill | op cit | p22 |
| 137. | F B Sullivan | op cit | p265 |

Chapter Three - Notes (continued)

- | | | |
|------|---|--------------------|
| 138. | ibid | |
| 139. | ibid | p266 |
| 140. | <u>Committee on the Education of Cadets in the Royal Navy</u>
<u>(The Woolley Report) (1869)</u> | <u>ADM 116/685</u> |
| 141. | Admiralty Circular 3c 6 January 1870 | <u>ADM 1/6110</u> |
| 142. | ibid | |
| 143. | Rice (1875) op cit | pa 40 |
| 144. | S Bonnet op cit | p125 |
| 145. | W L Clowes op cit Vol 7 | p76 |

Chapter Four

The development of higher education and the establishment

and early years of the Royal Naval College,

Greenwich 1869 - 1877

Abstract

Chapter Four examines the progress of higher education from 1869 to 1877 and accounts for the increased activity evident in the subject during these years.

It identifies the factors behind the appointment of the Shadwell Committee to conduct the first major enquiry into the higher education of naval officers. In particular, it explains how the impetus for reform was established by an Admiralty administration acknowledged as one of the most financially retrenched of the century.

The Shadwell recommendations are considered and their proposal to establish a new naval college at Portsmouth or Greenwich is examined. The process by which the more expensive, overwhelmingly less popular option was eventually chosen is followed in detail, and the early progress of the institution recounted.

The period 1869-1877 witnessed a quickening pace in the development of naval education. In these years the steady progress of the previous decade was transformed in an attempt to provide a system that would both select potential officers more efficiently and once entered, train them more effectively. For the more experienced staff higher education was completely overhauled in order to establish a system that could reflect and react to, the technological demands of the 'new' navy.

Up to 1869 this task had been undertaken by the Royal Naval College Portsmouth which was involved in a number of activities ranging from mandatory courses for Lieutenants qualifying as gunnery officers, to offering facilities for voluntary study to officers on half-pay. It has been shown that despite modern assessments of the College as a 'cramming' establishment, or that its work was largely technical training, innovative high quality work was being undertaken by a small but talented staff. It has also been noted that within College activities such as the examination of new entrants, training of Naval Instructors and examining serving officers on promotion, it was possible to observe an embryonic educational headquarters for the Service.

By the mid 1860s however, the shortcomings of this institution, designed in 1729 for the education of young boys, were becoming increasingly apparent. While it still saw only a fraction of the officer corps, it was overcrowded to the extent that a proportion of students always had to be accommodated in the gunnery training ship Excellent moored in the harbour - an arrangement required

so frequently that it was formally recognised in the 1862 Queens Regulations.¹ The number of students also placed pressure on College facilities such as the Study, which was only available for general use after four pm each day, and the Library from which books were not to be removed.² The fabric of the building which had been under funded for many years was also in a poor state and subject to frequent complaint - one correspondent informing the Broad Arrow in 1871 that the rooms of the College were 'neither wind nor water tight' and that 'the owner of a dog of any value would hesitate to keep it in one of the cabins of this institution'.³

While the material and organisational defects of the College in the late 1860s became yearly more apparent, the technological development of the Service proceeded apace. Within five years of the launch of the first ironclad HMS Warrior in 1860, Britain had 30 such ships afloat, each succeeding class demonstrating new aspects of design development. By the end of 1868 the first 'mastless' battleship had been laid down, turret ships were under construction and, from the August of that year, no future British battleship would displace less than 8000 tons.⁴ A comparable revolution was underway in equipment, with the advent of the breech-loading gun, elementary torpedoes, hydraulics and electric light.

Executive officers of the Royal Navy were of course neither responsible for the construction of warships or the operation of much of the new equipment they contained. As 'military' officers their principal responsibility was to 'fight the ship', and in the early days of the Navy's

technological revolution this distinction could be maintained - with the engineer allowed to practise his craft without interference or indeed curiosity by his executive superior. However, by the late 1860s the application of engineering to the central purposes of warships was increasing and starting to strike at the military function. The operation of the steam-driven gun turret for example, implied inter-dependence of engineer and executive officers and stressed the requirement for mutual understanding of skills. In 1869 the Admiralty directed that the Chief Engineer as well as the Gunnery Officer was to take part in the half yearly examination of gun mountings, and about the same period artificers were appointed to ships for specific gunnery engineering duties.⁵

By 1869 the disparity between the technological status of the Fleet and the facilities for the higher education of its executive officers was considerable and increasingly subject to comment and criticism. In that year Blackwoods Magazine noted that the College was 'lamentably deficient in instruments, apparatus and all appliances for study' and argued that 'the system of instruction for senior officers therefore requires a careful revision'.⁶ In March 1871 a letter to The Times⁷ outlined the shortcomings of the College and in May a correspondent to the Broad Arrow wrote drawing attention to 'an abode of learning which, if properly built and arranged might contain the means of instruction in every branch of our most important Service'.⁸

The Background to Reform.

The process by which the consensus for reform was translated into action has not been subject to previous detailed examination. The few commentators on higher education have generally been content to note the formation of a committee to examine the subject and its subsequent recommendations, that eventually led to the establishment of the Royal Naval College Greenwich. The lack of curiosity about this process is surprising on several counts. First, because the 1870 Committee on the Higher Education of Naval Officers constituted the first major official enquiry into naval education, ie. it was the first report to have 'Command Paper' status and thus be presented to Parliament. As such it offered an excellent summary of existing educational provision in the Service and, because the overwhelming preponderance of its witnesses were naval officers, it also provided an invaluable insight into contemporary thinking on the subject. Secondly the Shadwell Report was significant because of its place in the overall evolution of naval education. In particular, an analysis of its background and recommendations helps to explain why the decision to examine higher education and inaugurate a new college, with the extensive costs involved, was taken by an Admiralty administration acknowledged as one of the most financially retrenched of the century.

To explore this paradox and accurately identify the roots of reform, it is essential to examine the political background to the decisions taken in the Admiralty at the time. In December 1868 the Disraeli government fell and

the Liberals were returned to power with Gladstone as Prime Minister. His was a ministry committed to reform and its record in this field was so extensive that it has been suggested that during these years the foundations of the modern State were established.⁹ Much of this reforming activity was concerned with the overhaul of institutions. Access to the Civil Service was improved with the abolition of patronage and the introduction of compulsory competitive examination. The judiciary was remodelled and simplified in an attempt to make it more relevant to its contemporary duties. A third major area of reorganisation was the military, which was subject to vast and sweeping change.

The brunt of this reform was taken by the Army whose organisation, heavily based on patronage and influence, retained a discredited reputation derived from its performance in the Crimean War. Against bitter opposition and deeply entrenched interest, a series of measures transformed the Army into an organisation which, while still unsatisfactory in some aspects, was at least capable of adapting and expanding to face the challenges of the next century. Reforming measures included the abolition of 'commission by purchase' in the officer corps and the transformation of conditions of service for soldiers. Flogging was effectively abolished, and some regimental groups reorganised. Perhaps most significant was the establishment of a clear command structure which made the Commander-in-Chief subordinate to the Secretary of State, but in turn gave him direct supervision of all land forces, thus limiting the powers of Lords Lieutenant over local Militia.

Reform in the Royal Navy was less drastic and principally designed to reap financial savings. In this sense the Service had always been less politically contentious than the Army, and throughout the 1860s both parties had regarded it as a major source of potential public saving. At the fall of the Conservatives in 1868, Corry, the First Lord, had been planning sizeable reductions in naval spending - a process that the new government was pleased to continue. For Gladstone the Navy had long been a target for economising zeal and now, at the head of a government whose election campaign had placed reduction in public spending second only to the Irish question, he determined to accelerate the pace established by his predecessors.

Gladstone's demeanour towards the Navy appeared in marked contrast to his commitment to Army reform, which he had always seen as part of a general reconstruction of the mores of a 'vast, leisured and wealthy class'.¹⁰ His interest and knowledge of the Navy was limited, and he seldom spoke on naval affairs, other than when reviewing questions of expenditure.¹¹ Thus while he was keen to make savings and played a full part in the appropriate Cabinet discussions, he did not personally dominate this particular aspect of government activity and was usually happy to devolve responsibility to the individual minister concerned. His choice for the post of First Lord of the Admiralty, charged with carrying out a major reduction in naval expenditure, was H C E Childers.

Hugh Culling Eardley Childers was born in 1827 and educated at Cheam School and Trinity College Cambridge where he graduated in 1850. He married the same year and travelled to Australia to take up a post as Inspector of Schools for New South Wales. Two years later he became Auditor General (Chancellor of the Exchequer) of the newly founded state of Victoria. It was this position that enabled him to advance his proposal to establish the University of Melbourne, whose bill of foundation received Royal assent in February 1853, and whose first Vice Chancellor, Childers became. His career in administration prospered and he served successively as Secretary to the Education Department, Collector of Customs and Member for Portland in the State parliament. Childers' work in Australia provided abundant evidence of an interest in education. Apart from his contributions to the inspectorate, administration and at Melbourne University, it has been noted that the Melbourne Public Library and the State aided system of primary education owed their origins to his suggestions.¹²

In 1857 he returned to England to become the Agent-General for Victoria and entered Parliament as Liberal member for Pontefract in January 1860. In the House he was active on a number of committees and built a reputation for independence, regardless of the issue. Apparently forsaking his previous interest in education, Childers established a reputation for financial acumen and retained extensive connections in the City of London as chairman of the London and County Bank, deputy chairman of the Bank of Australasia and a board member of Credit Foncier Italian.

In April 1864 he was appointed Civil Lord of the Admiralty in the Somerset administration - a post he held until August of the following year.

This short period as a Board member enabled him to gain some insight into the workings of Admiralty administration. He accompanied the Duke of Somerset at the various 'visitations' of dockyards at home and abroad,¹³ and on the basis of his financial expertise, took a special interest in the system of dockyard accounts. His principal contribution to Admiralty affairs during this period was via the Greenwich Hospital Bill - which overhauled the finances of the foundation by limiting admission to wounded, helpless and infirm seamen and paying out-pensions to inmates who wished to live elsewhere. This had the effect of extending the benefits of Hospital funds to a greatly increased number of men. Throughout the period as a Junior Lord and subsequently in his position as Financial Secretary to the Treasury, Childers was a resolute supporter of Gladstone's policy of retrenchment, and it has been suggested that upon this the foundation of their political intimacy was based.¹⁴

Thus, when the Liberals were returned to power in December 1868, Childers appeared to have many of the qualities required of a First Lord who would be directed to reduce Naval spending below £10 million for the first time in a decade. He was an established administrator with Admiralty and Treasury experience, and was determined to apply the business methods derived from his career in banking. His initial Circular of 7 January 1869 gave the Service a fair warning of what it might expect.

The First Lord and the Board of Admiralty in accepting the charge of this Great Department, have undertaken that its expenditure shall be carefully examined and anxiously watched and controlled, with a view to a wise and well ordered reduction.¹⁵

In accordance with this, Childers set to work with diligence, application and what has been described as 'the unconcealed belief that all power over the Navy was vested in him alone'.¹⁶ A favourable international situation enabled him to reduce the overseas squadrons which absorbed a large proportion of the naval budget. His earlier efforts to reform the accounts of Greenwich Hospital were further extended with the closure of the buildings in 1869. Deptford and Woolwich dockyard which had been under threat for some years were finally shut, at what his biographer termed 'the cost of immense unpopularity and of the most violent and bitter abuse'.¹⁷ Equally unpopular was his reform of the system of officer promotion and retirement,¹⁸ which made him enemies amongst a large proportion of senior and long serving staff.

The most fundamental of the Childers reforms was a change in the constitution of the Admiralty Board itself, the details of which were announced within weeks of his appointment. The composition of members was altered, with the civilians now outnumbering the sea lords by four to three. This might have been tolerable if it had not been accompanied by the decision to dispense with regular Board meetings and insist that Naval Staff advise the First Lord individually. This particular philosophy was explained in an Order in Council of 14 January 1869 which stated that

The First Lord being responsible to Your Majesty and to Parliament for all the business of the Admiralty, the other members of the Board should act as his assistants in the transactions of the duties.¹⁹

From this date forward any collective decision making was marginalised with the First Lord now deciding on all important matters. The result was an increase in the political control of the Service and the achievement of a level of power for the First Lord, unmatched by his predecessors.

By the end of his first year in office the structural changes introduced by Childers had enabled him to fulfill his remit to drive naval spending to below £10 million and reduce manpower by around 2000. However, the dockyard closures, the prospect of compulsory retirement and the shift in power on the Board - whose meetings Childers dismissed as 'an appalling waste of time',²⁰ had made him enemies at every level. Nor was there any evidence that, despite the attempt to apply a more business-like approach to the organisation, the day to day working of the Admiralty was made more efficient. Coordination between departments became more difficult and the capacity of individual Board members to cope with increasingly technical business slowly reduced. What was undeniable was that for better or worse, Childers had established an organisational structure within which all lines of responsibility led ultimately to himself. The particular relevance to this study was that it was now possible for a First Lord to steer through measures without collective decision or opposition from other Board members.

His energies were soon applied to the field of naval education. In August 1869 in a confidential memo to the First Naval Lord, he noted that the standard of educational provision indicated 'a most unsatisfactory state of things'.²¹ Nor was he happy that the revision of regulations should be a matter for discussion at Board level and complained that 'it is lamentable to think that the training of midshipmen requires all this central action'.²² Within three months, acting only on the advice of Joseph Woolley and a small personally appointed committee, which included the headmaster of his son's school, the regulations for Cadets and Midshipmen issued in August were withdrawn and replaced.

A matter of days after issuing revised regulations for young officer training, Childers appointed a Committee to conduct the first major review of higher education. Once again this appeared to have been largely the result of personal initiative, for there is no record of discussion or correspondence between Board members on the matter - their minutes merely noted that, in a meeting of 28 January 1870, it was approved that 'a Committee on a course of education at the Naval College be appointed',²³ with Childers acting as sponsor for the item. The letters of appointment had the hallmark of his brusque and impatient approach, observing that 'the time has come when a more thorough examination might with advantage be made',²⁴ and directing the Committee to 'enquire and report what facilities for study should be allowed to, and what examinations should be passed by, officers of different ranks'.²⁵

The Shadwell Committee

The Committee on the Higher Education of Naval Officers was appointed on 28 January 1870, with the remit to examine four particular questions:

1st. Are sufficient facilities for study given to officers of these branches of the service, and are they afforded at such a period in an officer's service when such study is most beneficial?

2nd. By what examinations should the result of such study be tested, and what advantages should be obtained by officers who succeed in these examinations?

3rd. Is it desirable to limit the place of study to the College at Portsmouth? In what cases should officers be allowed or required to reside in a College? Should the public buildings be used only as places for examination, lectures, library? On this head the Committee will take into their consideration whether the vacant buildings at Greenwich could be utilised for the purposes of education.

4th. Is it desirable that facilities should be given to young officers to study at Cambridge, if the University would admit them for a limited number of terms? ²⁶

Appointed at the head of this Committee was Rear Admiral Charles F A Shadwell, an officer with an extensive record of active service, particularly in the Far East where he had been wounded leading a landing party in the attack on the Taku Forts in 1859. In addition to this distinguished record Shadwell was also a recognised scholar. He had joined the Service at the Royal Naval College Portsmouth in 1827 and had volunteered to study on half pay in 1848. It was during this time that he developed an interest in nautical astronomy on which he published a number of pamphlets.

His distinguished contemporary, Professor J K Laughton, noted that 'despite his long, and in some instances, brilliant service, Shadwell had the temperament of a student rather than a warrior.'²⁷ By the time he was appointed to head the Committee he was a Fellow of the Royal Society of some ten years standing, and was engaged on a study of nautical astronomy described as 'gradually assuming encyclopaedic proportions'.²⁸

The two fellow naval officers appointed with Shadwell also represented the scientific dimension of the Service. Captain George Henry Richards was the Head of Hydrography Branch, and Captain A W A Hood, the Director of Naval Ordnance. The civilian members were led by Joseph Woolley, Director of Education, distinguished naval architect and mathematician. He was accompanied by Revd. Dr Alfred Barry mathematician, former public school headmaster and Principal of King's College London. The third member was Spencer P Butler, Barrister at Law, who had previously served as Secretary to the Royal Commission on Greenwich Hospital in 1860, and in a similar post on the Durham University Commission the following year.

Their report was published in July 1870 and its opening paragraphs revealed that the Committee had taken a novel approach to establishing a starting point for their deliberations. Having explained various administrative details and summarised how evidence was gathered, they offered a resume of various systems of naval education adopted by the major maritime powers - the United States, France and Russia. In each case the qualifications and method of entry into the Service were

outlined and the principal characteristics of the education of foreign naval officers, identified and discussed. This portrait was then juxtaposed against the background of British naval education and the existing regulations for the Royal Navy.

It was readily apparent from this comparative study that the British system had a number of quite different and distinct features, revealing little in common with methods adopted by foreign powers. The United States, France and Russia all entered officers at a more advanced age - never less than 14 and often as late as 18 years old - compared to the British system with youngsters frequently joining at 12, and with an overall mean age of 13 years. All the foreign powers trained their students for longer, with Russia devoting six years to the task, more than double the length of time employed in the Royal Navy. This combination of later entry and longer training, admitted the Committee, undoubtedly produced Cadets who 'were better grounded in all pertaining to book learning' and were 'better qualified to enter on more advanced studies and to improve their general and special education'.²⁹

While the committee readily acknowledged this superior academic training, their defence of the British system remained resolute. The practice in the Royal Navy they argued:

ensures the obtaining a supply of young officers at a time when, their minds being docile and plastic and their habits and modes of thought yet unformed, they can be more easily inured to the peculiar habits of a sea life, be more accustomed to its unavoidable privations and occasional

hardships, be trained up in attachment to their profession and be induced to adopt it heartily, as their vocation in life.³⁰

This defence was indeed in accordance with long established tradition. The practice of thrusting very young boys into the harsh conditions of a warship, which would then provide a proving ground for hardiness and the instilling of gentlemanly qualities had always predominated over the more formal college entry system. Neither were the Committee interested in recommending change, for new entry training was outside their terms of reference³¹ and anyway they felt the British system to be 'in accordance with its historical recollections and in unison with the general tone of professional feeling on the subject'.³² Thus, while the superiority of academic training in other navies was readily acknowledged, the requirement in the Royal Navy to concentrate on forging qualities of character and leadership in the early years remained, in the Committee's view, of paramount importance.

At first glance these comments appear to be a simple reassertion of the traditional British approach. However where the Shadwell Committee broke new ground was to place the nature of education and training in the context of a complete naval career. In this sense, it suggested that while the British naval experience was entirely appropriate to the young Cadet, it could not be regarded as adequate or sufficient to meet the challenges of the later stages of an officer's service. While the acknowledged superiority of foreign systems might preclude the need for later study, within the British

pattern it was of the utmost importance

to make provision for subsequent adult education or professional improvement in after years, which under our system of early entry and limited training becomes very essential, and of paramount importance.³³

This was an ingenious argument for a system of higher education. It recognised the value, and made no attempt to change, the traditional nature of Royal Navy initial training yet, by direct comparison, it suggested that foreign powers were producing accomplished officers better able to face the technological challenges of the future. The implication was that a two tier system would both preserve traditional strengths and allow standards to be raised.

Thus, for the first time, an attempt was made to justify the necessity of higher education in an officer's career pattern. To some extent the provision of study facilities for half-pay officers at the Royal Naval College Portsmouth had always attempted to satisfy this requirement, although numbers were limited and arrangements frequently 'ad hoc'. Similarly the role of the gunnery school had been recognised as not only providing specialist professional training but also posing an academic challenge to mid-seniority officers. The Shadwell Report of 1870, however, marked the formal recognition that such higher training was not just desirable, but essential to meet the technical challenges of the future. The choice of a comparative study to illustrate the point also implied the necessity of higher training, if the Royal Navy's prominence in the international naval order was to be maintained.

The Report, having established a datum, then turned to examine the existing provision of 'further training' ie. educational activity in the Service, beyond that conducted in HMS Britannia. They looked initially at the arrangements for the instruction of Midshipmen at sea - a system they found to be seriously defective. The difficulty of attempting to educate in the demanding surroundings of an operational warship had long been recognised, and evidence offered to Shadwell suggested that little change had taken place in recent years. Under the most favourable circumstances not more than six to eight hours could be spared for instruction, and even that was subject to 'the numerous interruptions which are incidental to a young officer's life on board ship'.³⁴ All the evidence suggested that the present system was 'very imperfect' and was producing a situation where 'the knowledge of young officers in everything but navigation is in inverse proportion to the time elapsed since leaving the Britannia'.³⁵

Regulations governing future admission to the Royal Naval College and an outline of likely courses of instruction were then given. Perhaps the most surprising aspect of this section was the recommendation that 'after officers have passed their examinations as Sub Lieutenants all further study for which a College might afford them opportunities should be wholly voluntary'.³⁶ Given the strong case made in Section Seven for the necessity of higher education, some form of mandatory element might have been expected. The Committee however favoured a more subtle approach, and while emphasising the voluntary nature of college courses recommended that,

for the first time, Sub-Lieutenants and Lieutenants should attend on full pay, with time counting for seniority. In this manner they hoped

to attain the important object of inducing officers to go to the College when young, and at a period of their service when study would be most beneficial to themselves, and to the service; at the same time they have recommended a qualifying period of previous sea service, so as not to interfere more than necessary with the acquirement of professional experience as officers and seamen, during the early period of their career.³⁷

This was clearly an attempt to strike a balance between the practical and theoretical knowledge necessary to a naval officer and one that acknowledged the traditional emphasis placed on sea service in the early years of a career.

A number of the existing features of the College were to be retained in a slightly modified form. Engineers, Marine and Marine Artillery officers, for example, were still to be admitted under the existing regulations. The facility for Captains and Commanders to study on half pay was to be retained, although in future they would have to demonstrate aptitude for further study via a preliminary examination at which 'Officers failing to pass should leave to make room for others'.³⁸ It was envisaged that no officer of Captain's rank who had not previously attended the College would be admitted, and half-pay officers should not form more than one fifth of the total College complement.

The trend in these deliberations was quite apparent. Some traditional features were to be retained -

particularly the link between academic facilities and professional training in gunnery, and the half pay arrangements which allowed senior officers to compensate for shortcomings in their previous Service education. However, the Committee envisaged a shift of emphasis to a College that would consist largely of younger officers, studying full time. The proposed combination of voluntary attendance with the benefits of full pay and seniority was a deft attempt to attract talented well motivated students, while ensuring they were not penalised for their endeavour. Finally, the imposition of an initial examination for officers of all ranks, both full and half pay, ensured a minimum standard of entry, upon which courses of study could be based.

The principal areas of study recommended were Steam, Mathematics, Higher Mathematics, Nautical Astronomy, Languages, Physical and Experimental Sciences, Fortification and Naval Architecture. Additional lectures were to be offered on International and Maritime Law, and Naval Tactics. The mandatory element was restricted to the practical element of the 'Steam' course which was to be studied by all naval students regardless of rank. Otherwise no more than two courses were to be followed at any one time. Up to one year might be spent at the College in each rank although this could be extended a further six months by special recommendation. The Committee was particularly keen to emphasise that any officer wishing to advance his knowledge beyond the limits of the set course, should be encouraged to do so, if College facilities permitted.

It will be readily apparent that the proposed curriculum indicated a conception of higher education exclusively and narrowly technical, devised with the objective of achieving a practical improvement in professional knowledge. Where Chemistry was to be studied, for example, it was to explore sheathing and anti-fouling compositions for ships' hulls. Nautical Astronomy featured magnetism as it related to compass correction, the use of instruments for celestial navigation and the study of weather. Fortification was the obvious corollary of gunnery. Even the study of foreign languages, by which the Committee actually meant French for naval officers and the possibility of German for Marines, was seen as the acquisition of a practical skill. To this end they suggested that it would be 'very advantageous to the public service if under suitable regulations, officers should be permitted to visit foreign countries for the purposes of studying their languages'.³⁹

Later sections of the Report dealt briefly with administrative arrangements and the provision of equipment and future academic staffing levels within the College. This area again emphasised the modest nature of the Committee's proposals which, while acknowledging that numbers would be determined by the Admiralty, suggested that 60-70 students should be the basis for future calculations. This they argued would imply a full-time teaching staff of nine, to comprise 1 Professor, 1 Assistant Professor, 2 Mathematical Assistants, 1 Permanent French Master, 2 Practical Instructors in

Steam, 1 Instructor in Fortification and 1 Instructor in Naval Architecture. Additionally a naval officer competent in marine surveying was to be appointed to teach 'the use of instruments' and to run the College observatory. The general working of the College would be supervised by an educational board, consisting of the Professor and principal members of the academic staff but would work under a senior naval officer acting as Superintendent of the establishment.

It will be noted that these proposals differed little from the existing arrangements at the Royal Naval College Portsmouth, which had been commanded by a Captain Superintendent since its reorganisation in 1839. The proposed staffing levels were much the same and the number of students envisaged did not represent a dramatic increase. In the three decades since its inception more than 2500 officers had studied at Portsmouth, giving a mean yearly attendance of more than 80 students. Even when the numbers attending the much maligned Mates course were discounted, the College saw an average 44 students annually, with the majority attending on half-pay. Thus the intention for the new institution to teach between 60 and 70 students per year hardly represented a drastic expansion. Neither could such capacity begin to cater for more than a fraction of an officer corps, whose active list in January 1870 consisted of nearly 300 Captains, over 400 Commanders and in excess of one thousand Lieutenants and Sub Lieutenants.⁴⁰

The final sections of the Report dealt with a possible future site for a College. Although at the

outset the Committee had been specifically directed to consider 'whether the vacant buildings at Greenwich could be utilised for the purposes of education',⁴¹ they were unable to reach a decision. While arguing that such a question should be 'decided almost exclusively by the abstract consideration of the best interests of the College and the Service',⁴² they failed to agree on a designated site and instead offered a summary of the respective arguments for the Portsmouth and Greenwich locations. The issue, in fact, divided the Committee, with the naval staff 'unanimously and strongly in favour of retaining and improving the existing Naval College at Portsmouth',⁴³ and the civilian element equally resolute in favour of the conversion of Greenwich Hospital into an educational institution.

The respective arguments were to some extent indicative of a general difference in philosophy towards the purposes of higher education in the Service. The naval lobby saw the essential element as the practical application of improved knowledge, and to this end Portsmouth was, they felt, the ideal choice. It was only in the Dockyard, it was argued, that the relationship between higher study and its practical consequences might be observed. Only at Portsmouth could officers

study all improvements and can witness all trials and experiments that take place from time to time. They have access to all the factories and workshops; they have the opportunity of visiting and inspecting foreign vessels of war calling at the port. They are in constant contact with the service afloat, and with the society of Naval officers of all ranks, which necessarily elicits

much professional discussion of a useful and critical character.⁴⁴

It is implicit in this argument that higher education was principally a form of vocational training. The naval members of the Committee were content to argue that it was not the primary aim to make naval officers 'able mathematicians or scientific experts', but rather to assist them in 'acquiring varied knowledge, which they can afterwards utilise and employ for the benefit of the public service'.⁴⁵

Predictably, the case for Greenwich was argued from a different angle. The belief here was that the first and essential requirement for a new college was the high quality and superior character of the teaching staff. The vicinity of London, 'which is the real scientific university of the kingdom',⁴⁶ offered significant advantages, for it would be possible to obtain 'lectures and practical instruction by gentlemen eminent in the scientific and literary world which would be quite unavailable at the distance of Portsmouth'.⁴⁷ The civilian members foresaw the establishment of an academic community at Greenwich, with the Hospital quarters being used as residences by distinguished staff, and thus a higher standard of teaching being provided at a similar or lower cost than the south coast alternative. Further, the ancient connections with the Royal Navy, which dated from the mid seventeenth century and were epitomised in the magnificent Painted Hall of the Hospital, were seen as entirely appropriate to a seat of naval learning.

The utilitarian argument was not completely dismissed from the Greenwich case but was interpreted in a rather wider context. The Thames and Medway, it was claimed, actually offered superior facilities for the study of naval architecture, ship building and steam, and further the proximity of the Royal Artillery and Royal Engineers at Woolwich, Chatham and Shoeburyness gave special facilities for the study of gunnery, torpedoes and field fortification. The London site thus offered a unique opportunity for inter-disciplinary study and the facility for naval officers to mix socially and professionally with 'scientific civilians and the scientific corps of the army'.⁴⁸ It was thus envisaged that students studying at the new College would derive positive benefits from associating with the wider scientific community offered by the capital city.

No consensus was achieved and the matter was referred to the Admiralty Board for a decision. The relative advantages of the two sites were advanced in a constructive and considered manner and, depending upon the particular perspective applied to higher education in the Service, both had their merits. What was quite clear, however, was that while the issue divided the Committee nicely along service/civilian lines, the case for Greenwich was not based on any substantial opinion expressed by witnesses. Of the 16 persons examined only two supported the Greenwich case and of the 56 written submissions only five were in favour and some positively hostile to relocation. Many considered Portsmouth 'self evidently superior' and 'better for obvious reasons',

with one senior officer 'greatly surprised that a proposal to move the Naval College should ever seriously have been made'.⁴⁹ In the light of subsequent events, it is important to stress that such views were common, and while the case for both sites was presented as a fine balance, Greenwich was overwhelmingly less popular with those giving evidence.

It was also considerably more expensive - a point that supporters of the Greenwich case were always prepared to concede. No estimates are included in the Report, but a note of the disparity between the respective sets of running costs is included in personal papers of Rear Admiral Tarleton, appointed Second Naval Lord in May 1872.⁵⁰ Here it was recorded that the annual cost of the College at Portsmouth over the previous years had averaged some £6,785 per annum, while the expenditure for running a higher education establishment at Greenwich was estimated to be in excess of £31,000 per annum.⁵¹ Even when the costs of Portsmouth and the School of Naval Architecture at South Kensington were combined, the Greenwich option was more than three times more expensive. Thus a move to the old Hospital was not only less popular with the Shadwell witnesses, but would represent, at a time of stringent naval economy, a considerable increase in the scientific vote.

The Shadwell Report was clearly an important landmark in the evolution and development of education in the Royal Navy. It was the first systematic, detailed examination of the subject and it ingeniously established a place for higher study, while simultaneously

acknowledging the value of the existing training process. Its concept of all higher education being followed on a voluntary basis without penalty was equally adept, for it encouraged the talented and motivated, and neatly side-stepped the problems inherent in a compulsory attendance system. For the first time the Committee acknowledged the impossibility of achieving adequate levels of training and education on board operational warships, and its proposal to dispense with sea going Naval Instructors⁵² was formal recognition of low standards of professionalism over many years. Credit should also be given to the Committee's views on language training, which while rather narrowly conceived, did make provision for foreign travel on full pay in furtherance of study. Similarly the view that for exceptional officers 'opportunities should be given to resort to Universities or other places of higher education at home and abroad',⁵³ represented a considerable advance in educational philosophy.

Despite these positive qualities the majority of the Shadwell proposals were essentially conservative and relatively limited in scope. It will be apparent, for example, that there was a considerable disparity between the rhetoric urging the necessity and importance of higher study, and the actual measures recommended for its implementation. While the Committee advanced their 'hope that the renovated Naval College may infuse new scientific vigour into the Service',⁵⁴ their proposal for an institution employing just ten staff and a population of between 60 and 70 students, differed very little from existing

arrangements. Neither could such an institution be anything other than tangential to an officer corps whose executive branch numbered several thousand and whose civil element, particularly in the engineering specialisation, was bound to increase in the future.

It is also clear that while the civilians on the Committee - Woolley, Butler and Barry - had some reservations about the courses becoming overly technical, the members generally had a very narrow concept of the work that a future College might undertake. Their proposed syllabus differed little from the existing curriculum and each main subject was established and justified on the strict vocational requirements of the officer corps. While the lectures on international law and naval tactics were a welcome addition, they did not imply the recognition of a need for broader or more liberal study. Indeed, in this area the Committee were particularly defensive - emphasising the requirement for an Admiralty approved text book which would both guide officers and warn of matters upon which 'doubtful views and unaccepted decisions still prevail'.⁵⁵ Of even wider study - war operations, strategy or the history of naval campaigns there was no mention, and the concept of a war college, where military problems might be discussed in an intellectual and open manner, did not form any part of the deliberations. For the Shadwell Committee, the purposes of higher education in the Service remained exclusively and narrowly technical.

That this should have been so was hardly surprising when the background and experience of the witnesses are

considered, for although the membership of the Committee was split equally between civilians and serving officers, the preponderance of evidence was provided by naval personnel. Of the 16 people giving oral testimony, all but two were in the Service and more than three quarters of these had connections, either as staff or student, with the Royal Naval College, Portsmouth. Only two civilians were called - E J Reed and Thomas Main, both of whom had close links with existing arrangements as Chief Constructor of the Navy and Principal of the College, respectively. Thus, while all witnesses were interviewed at length, with 21 sessions producing more than 70,000 words of evidence, it is important to recognise that the catchment was both restricted and always likely to support the status quo.

Similar reservations must be made about the other method of enquiry adopted by the Committee which was via a Circular, inviting comment upon a number of specific questions relating to the subject of naval education. First the background of those responding was arguably even more exclusive than those giving oral evidence, for all were naval staff and no views were cited from officers below the rank of Commander. Of the 56 respondents, 49 were Captains or above and this included the views of some 12 Admirals. While some did have an established previous interest in the subject, the principal characteristic of the group appeared to be little more than their seniority in the Service. In some cases this was considerable indeed, - Admiral Sir Henry Codrington had joined the Royal Navy in 1823 and his

colleague Sir Frederick Grey in 1819, - decades before the advent of the training ship or the advent of any higher education in the Service. Indeed, by a calculation based on seniority, none of the 49 senior staff could have been the product of the existing initial education system that provided the foundation to higher study. While obviously not disqualifying them from comment, it hardly seemed a satisfactory basis for shaping future provision, particularly when the views of early Britannia students - by this time mostly mid seniority Lieutenants, remained unheard.

The second point to make about this method concerns the nature of the Circular, which was restricted to posing twelve questions relevant to higher education. While this obviously limited the scope of the response, most of the enquiries were reasonably open ended and did provide the opportunity for those interested to comment at length. However, few apparently chose to do so for the abstract reveals a number of questions unanswered and responses often limited to a simple yes or no. The final request to 'favour the Committee with any other observations you may wish to offer' also failed to produce extensive testimony, and was ignored altogether by 16 of the 56 correspondents.⁵⁶

There are thus important methodological reservations to be made about the work of Shadwell. The membership of the Committee, with its blend of officers responsible for new technology and civilians including an academic, a university administrator and the Director of Education was both appropriate and imaginatively conceived.

However, their information gathering process was much less so. The overwhelming preponderance of naval witnesses, many of whom were extremely senior, with no obvious competence in the field of higher education, inevitably presented a highly restricted, vocationally orientated view of further study. Similarly the method of interviewing in depth a small number while eliciting testimony, via a modest questionnaire, from a larger yet even more exclusive group, did nothing to widen the perspective. In this sense once the method was adopted, the result was inevitable. Consequently, any broadening of the perspective, as in the case for the relocation of the College to Greenwich, tended to be argued in spite of, rather than because of, the evidence offered.

Response to Shadwell

The Shadwell Report was issued on 8th July 1870. It was presented to the House of Commons in June the following year and a motion for its adoption was proposed by the naval writer and Liberal member for Hastings, Thomas Brassey. He was to become a noted authority on naval affairs, serving subsequently as civil lord of the Admiralty, parliamentary secretary to the Admiralty Board 1884-85, and holding the presidency of the Institution of Naval Architects. Brassey believed the Shadwell recommendations to be both wise and judicious and, with the exception of the early age of entry which meant that young officers were 'deprived of the opportunity of pursuing their studies in the public schools of England',⁵⁷ urged their full adoption. He was a vigorous supporter of maintaining the existing College at

Portsmouth which he foresaw as a great naval university providing 'a real fusion between the Merchant Marine and the naval service'.⁵⁸ The institution, he thought, should be empowered to confer degrees and investigate all branches of science which 'were important to the naval point of view'.⁵⁹

Replying for the government the First Lord of the Admiralty, George Goschen, acknowledged the subject to be one of great importance but claimed that his limited experience in the past precluded him from making detailed comment on the Shadwell recommendations. He assured the House that the Report would receive the careful attention of the Admiralty and urged members not to press the matter to a division. There were only two further speakers - Sir John Hay reiterating the view that a public school education should not be denied to prospective young officers, and Captain Egerton who outlined the traditional argument about the danger of naval education becoming 'too theoretical'. On the assurance that the Shadwell Committee's recommendations would receive full consideration the motion was withdrawn without a decision and the session concluded.

The short debate was the sum total of parliamentary discussion for, with the exception of a short exchange in the House of Lords⁶⁰, there was no further discussion of Shadwell, and its findings were consigned to internal Admiralty administration. This proved to be no more forthcoming, for although the Report was submitted in July 1870, it was more than two years before the announcement that a new naval college would be funded,

and the Order in Council authorising its establishment was only finally issued in January 1873.⁶¹

The brief, and in some ways less-than-satisfactory, parliamentary debate and the subsequent silence from the Admiralty proved a source of frustration to the Service press, which throughout 1871 and 1872 found naval education and apparent Admiralty inaction on the subject, a matter for comment. The Journal of the Royal United Services Institution reported debates on preliminary and higher education of naval officers in March and June 1871 respectively.⁶² The following month the Naval Chronicle, reviewing the current state of naval education declared 'how a subject of such importance should not have been settled long ago is a matter of surprise'.⁶³ In a similar vein in January 1872 the United Service Magazine noted of naval education that 'the time to deal with this question, as with the matter of naval administration, in a firm and satisfactory manner, has arrived'.⁶⁴

Several factors are relevant to Admiralty conduct at this time, and go some way to explaining the dilatory nature of the administrative process. Perhaps the prime consideration is that by the time of the parliamentary debate the original architect of naval educational reform, H C E Childers, had left office - forced to resign following the loss of the experimental battle-ship HMS Captain, which capsized and sank with the loss of 481 lives, including his son Midshipman Leonard Childers, in September 1870. This catastrophe threw into sharp focus the lines of responsibility that had been the hallmark of the Childers' administration. He had been an avid

AT SEA

CAPTAIN PUNCH: "Hold on Mr. Goschen! Hold on Sir! You'll be all right when you've got your *Sea Legs*!!"

Punch neatly portrays Goschen's early days in office - 18 March 1871

supporter of the experimental turret ship concept and despite reservations expressed by a number of experts about the stability of the Captain, Childers had taken the final decision to send her to sea. The formal responsibility for her loss was thus placed at his door and, in the midst of acrimony and dispute, he eventually resigned from office in March 1871.

With Childers' personal advocacy of naval education diminished, and his capacity to take the initiative rather than indulge in collective discussion removed, the progress of reform lost some of its initial impetus. His successor George Goschen, who assumed the office of First Lord in March 1871 was a wise and skilful administrator but had no previous experience of naval affairs and was forced to depend on an almost totally new Board. Unfortunately his arrival coincided with a series of incidents that embroiled him in controversy and further shook public confidence in Admiralty administration. Within months of taking office the battleship Agincourt, then the largest British warship afloat, was negligently stranded in broad daylight and clear weather on Pearl Rock, Gibraltar. In June the troopship Magaera was run aground and found to be unseaworthy - an incident that provoked a storm of protest concerning the condition in which the Admiralty allowed ships to proceed to sea. During 1871 and 1872 Goschen was subjected to a series of difficulties including the dockyard closures at Woolwich and Deptford, which caused considerable hardship to an already impoverished area. Throughout this baptism of fire Goschen remained under persistent pressure from

Gladstone to make economies in a budget that could scarcely stand further reduction.

The cursory nature of the Commons debate on the Shadwell proposals, and the First Lord's tentative and cautious approach to their implementation, are thus partly explained by a wider perspective of Admiralty affairs during the period. Childers' retirement inevitably removed some urgency from the reform process and his successor under a series of pressures, not least from his leader, was attempting to deal with a difficult and crowded agenda. Yet while these factors may help to explain some administrative delay, they cast no light on why, in the face of overwhelming naval opposition, the final decision was taken to found the new College at Greenwich, or indeed why, at a time of unparalleled naval economy, this more expensive option should receive government support.

Contemporary evidence suggests a general concern for the fate of the empty Greenwich Hospital itself. The buildings, which included the Painted Hall where Nelson lay in state after Trafalgar, had been designed initially by Wren 'for the safe retreat and public maintenance of men who have kept watch over public safety...'⁶⁵ They had housed almost 3000 pensioners in the years after the Napoleonic Wars and this number had been maintained until the 1850s. The declining roll thereafter prompted a Royal Commission of 1860 to suggest a number of reforms which were incorporated into the Greenwich Hospital Act of 1865 which allowed inmates to opt for out-pensions. Further inducements to leave were offered

in 1869, and in October of that year the last pensioners were transferred to an infirmary and the buildings were closed.

The future of this magnificent site was widely discussed in the Service press. Within a month of closure the Naval Chronicle suggested that the site 'might be advantageously turned to the purposes of a sort of Naval Hampton Court',⁶⁶ where veteran officers might be afforded grace and favour apartments. In April of the following year the United Service Magazine lamented the fact that this beautiful and well known range of buildings had been rendered empty and desolate,⁶⁷ and stressed that legal considerations attached to the charitable foundation would limit their future use. The Naval Chronicle took up the theme in 1871 stressing that the Hospital was the property 'not of the Nation but of the Navy' and declared that whatever the essential fate, the institution must remain within the Service.⁶⁸

While there were few detailed proposals, the most popular view in the press was that the empty establishment should be put to some academic use within the Service. This was understandable for the original institution and surrounding area had always had a naval educational dimension. As early as 1712 a small mathematical school had been established for the sons of pensioners. From 1828 this occupied the buildings of the Queens House in Greenwich Park with the title the Royal Hospital School. In 1833 a similar establishment had been established at Camberwell and in 1840 moved to a new site within view of the Hospital at New Cross.⁶⁹ Proposals in various

newspapers between 1869 and 1872 included converting the site into a school for the sons of naval officers, founding a shore based alternative to HMS Britannia, establishing a naval staff college and making Greenwich the new home of higher education in the Service.

An association of the site with education, at least in the public mind, appears to have arisen partly from a combination of historical precedent and partly via a simple process of confluence - the longer the buildings remained unoccupied and the longer the question of a new college remained unresolved, the more the two issues became associated. A Broad Arrow editorial of November 1871, urging conversion of the Hospital to a college epitomised the view thus 'it is a scandal not to use in some national manner such a national monument as Greenwich Hospital... There is a house and someone must be got to live in it'.⁷⁰ There is no evidence, however, that such observations had any effect on the decision, for the existing administration had closed the buildings, specifically upon economic grounds, and with their pursuit of naval economy undiminished and a cheaper option available at Portsmouth, they were unlikely to be swayed by sentiment.

A closer examination of the political background and in particular the relationship of the Prime Minister with his own constituency, reveals a rather different and darker logic. Gladstone had been elected for one of the two seats at Greenwich in 1868, although the fact that he had been placed second he described as 'more like a defeat than a victory, although it places me in parliament

again'.⁷¹ This was the start of a difficult relationship with the town, not least because the effects of the naval retrenchment, so close to the Gladstonian cause, devolved to a significant degree on his own constituents. The closure not only of Greenwich Hospital, but also of Woolwich and Deptford dockyards in the same year, had produced considerable local unemployment and discontent, to which Gladstone remained oddly unsympathetic - it being noted that 'none of the interest in the unemployed which he had shown in Lancashire in the 1860s was bestowed on the dockyard workers who had lost their jobs'.⁷²

It was almost three years before Gladstone could be persuaded to address local voters and it was a prospect that he approached with some trepidation. His Cabinet notes reveal that on 27 October 1871 he invited 'contributions and cautions',⁷³ as to the forthcoming constituency speech at Blackheath. What his notes do not reveal is that in response to this request, he received a letter from George Goschen, First Lord of the Admiralty, who shared his leader's concern about 'what I should say in your place as to the discharge of Government workmen in Woolwich and Greenwich, if I had the unenviable task of addressing a Greenwich audience'.⁷⁴ Goschen suggested that Gladstone should employ the 'usual' arguments about the national need for reduction in government establishments, but acknowledged that 'I am unable to see how you can satisfy local feeling on the point'.⁷⁵

However, in his concluding paragraphs he offered Gladstone a potential lifeline:

There may be one local argument in suggesting that... if certain establishments are closed others will be opening up and indeed already there is a considerable record of employment [?] at Greenwich. As to the Hospital (Greenwich Hospital) I think I cannot do better than repeat what you said to the deputation,⁷⁶ going a little further and saying you hoped the Hospital would be utilised to become an object of great interest to the country...

You may, I think speak as to some decision on this, as I feel sure that if I can obtain your consent and that of the Cabinet a great scheme can be carried out in the way of naval education...

I am [lost ?] at having no better ideas to give you but I am fairly [floored ?].⁷⁷

Gladstone's speech, delivered the next day to an audience of several thousand, including a large and hostile element, fully incorporated Goschen's suggested mollification of his constituents:

Of your local interests, gentlemen, strictly so called, I will now say but one word, because it refers to a point at which, as a matter of fact, they touch upon a national subject. I mean with respect to the noble hospital at Greenwich. I had the honour of stating to an important deputation of your townsmen, formed without any distinction of political opinions, the views with which Her Majesty's Government would approach the consideration of the questions connected with that truly national building. Since that time the matter has had the careful attention of my right honourable friend the First Lord of the Admiralty; and I am sanguine in the belief that, when his plans are matured, you will find that it will be, as I hope, in our power to apply the hospital to a purpose which will be satisfactory to you and to the country. Nor do I despair even of this, that it may be a purpose - though it would be premature

to express a positive opinion - that it may also be a purpose, which will revive and renew the traditions of the glorious profession with which from the first it has been connected.⁷⁸

Nothing more of local interest was included and having offered this sop to local feeling and effectively quashed initial heckling and interruption, Gladstone spoke on a series of national issues for a further two hours, in what has been described as one of his greatest oratorical efforts.⁷⁹

The matter was subsequently discussed in Cabinet with Gladstone's diary entry for 30 January 1872 noting 'Greenwich Hospital to be made centre of naval education',⁸⁰ although he took no further interest in the scheme and did not speak in the constituency again until the next election, some two years later. The expediency of the decision however was clearly of some concern to the political members of the Admiralty Board who, throughout 1872, demonstrated an evasive and disingenuous approach to the subject when pressed in the House. For example, on 13th March a small committee led by the Second Naval Lord was appointed specifically 'to consider and arrange the details of the Establishment of Greenwich Hospital for education'.⁸¹ Yet in the House of Lords on 3rd May the Earl of Camperdown, who was a member of that committee, while acknowledging that there was a growing opinion that Greenwich was the more suitable site, emphatically denied that the choice of location had been settled. Under heavy pressure from the Portsmouth lobby he concluded the debate with the assurance that the matter was 'still under the consideration of the First Lord of the Admiralty'.⁸²

More obfuscation followed in August in a late night sitting on the Naval Estimates, within which the costs of establishing the College were included. The fact that this discussion had been long delayed may itself have been a political ploy - certainly the Broad Arrow thought so, commenting that 'the postponement of the Naval Estimates until the fag end of the session is no doubt a very convenient method of avoiding full discussion',⁸³ and that it was 'now a favourite course with the Admiralty'.⁸⁴ Whether this was so or not, Goschen's claim in the debate that he had been informed that 'after careful estimates £10,000 would cover the whole transformation of Greenwich',⁸⁵ did not accord with the findings of his own [Tarleton] Committee which reported confidentially on 29th June, that more than three times this amount would be required.⁸⁶ 'The whole matter' concluded the Broad Arrow, 'teems with circumstances of grave suspicion'.⁸⁷

Sir James Elphinstone, one of the members for Portsmouth and a rigorous supporter of retaining the College in the dockyard, forced a division, claiming that opting for Greenwich was 'a political ruse for the purpose of doing something for that constituency',⁸⁸ and that the Vote for 'New Works, Buildings, Machinery and Repairs', within which the new college was included, be reduced by £10,000. Government support held firm, however, and the amendment was rejected by 99 to 64. Thus the establishment of the educational institution in the splendid surroundings of Greenwich Hospital, which had been determined privately between the Prime Minister and his First Lord some ten months previously, was finally

assured.

The fact that, as the United Service Magazine bluntly commented 'there are few naval officers who, if consulted, would not unhesitatingly give Portsmouth the preference',⁸⁹ and that the decision to do otherwise was 'unquestionably due to the fact that the Prime Minister is member for Greenwich',⁹⁰ did not of course disqualify the many arguments in its favour. The location close to the capital meant that it could attract high quality staff and there were increased opportunities for contact with a wider scientific community. Perhaps most significantly the vast range of empty wards and offices in the Hospital, which at its peak had accommodated more than 2000 men, offered considerable potential to expand the modest proposals of the Shadwell Committee - particularly in terms of the numbers of staff and students.

This was certainly the view of the Tarleton Committee when it reported on the preliminary arrangements for the new college in June 1872. Although the members - Admiral Tarleton, the Earl of Camperdown, Joseph Woolley and the Director of Works for the Admiralty, Colonel Clarke - noted they had considered the Shadwell findings and had taken 'further evidence on the subjects referred to us',⁹¹ no details were given and the report was presented in the form of a list of recommendations. Nevertheless there were a number of significant differences from the modest proposals offered by the earlier committee - the principal one being the incorporation of the School of Naval Architecture at South Kensington into the new Royal Naval College.

This presumably helped to justify the proposed increase in the number of students from the 60-70 foreseen by Shadwell to at least 200. In addition to Royal Naval personnel the group also foresaw the possibility of extending the entry to private students and officers of the Mercantile Marine.⁹² Almost every class of entry was to be expanded, with the number of officers studying on half pay increasing from 23 to 75 and Engineers, who were in the minority at Portsmouth, forming the next largest group. Teaching staff were also to be increased, with Tarleton predicting a requirement for 27 permanent members composed of civilian professors, lecturers and serving officers. Unlike the Portsmouth college, whose Superintendent was also commanding officer of the gunnery ship, the new establishment was to have 'an Officer of not lower rank than that of Rear Admiral'⁹³ to be appointed President.

With the prospect of increased numbers went a series of recommendations to extend the various terms of study. Sub Lieutenants who had previously attended for between six weeks and three months were now to spend six months at the College, and Royal Marine Lieutenants had their study extended to 18 months. One of the most significant changes applied to Engineers, many of whom at this stage received an exclusively practical course of instruction in the dockyards, before proceeding directly to sea. While it was keen to avoid any implied criticism, the Committee felt that with 'the complicated structure of our modern iron ships, and the valuable machinery distributed over them, we are of opinion that a wider and more general

knowledge is required'.⁹⁴ Henceforth, after six years in the dockyard all Engineers would proceed to Greenwich for a one year course prior to a final examination.

The Report concluded with a review of ancilliary arrangements, noting that the 'Naval Models' from South Kensington would be removed to Greenwich, that the Observatory belonging to Greenwich Hospital School would be available for the use of students, and that further laboratories would be fitted in the brewhouse.⁹⁵ For practical instruction in steam it would be necessary to attach a small steam vessel to the new establishment. The Committee were keen that 'no pecuniary obstacles should be placed in the way of Officers availing themselves of the advantages of studying at Greenwich',⁹⁶ and to this end they recommended the granting of 'furnished quarters, fire, lights, attendance and an allowance of 2s. 6d a day'.⁹⁷ Nevertheless, the careful social distinctions between the various classes of officer were upheld with the recommendation that Commissioned Officers and Acting Sub Lieutenants should dine in the upper portion of the Painted Hall, while Acting Assistant Engineers and Students of Naval Architecture should use the rooms underneath.⁹⁸

In the context of the overall history of naval education the first Tarleton Report was a modest contribution, amounting to less than 20 pages, and containing little explanation or illustration of its recommendations. It was, of course, classified 'Confidential', for internal use within the Admiralty, and because its purpose, to investigate the detailed

establishment of the new college, had yet to become public knowledge, it was limited in the extent of evidence it could take. Nevertheless, while clearly a corollary to the Shadwell Report, it also represented a significant advance over the original 1870 proposals - particularly in terms of the numbers and background of students, and the nature of the curriculum. Safe in the knowledge that the political imperative to move to Greenwich had been established the Committee, which included two members of the Admiralty Board, could afford to take a broader, more expansive view of the future of higher education.

Given that the work of Tarleton was essentially procedural and that its remit 'to consider and arrange the Establishment at Greenwich Hospital for the Education of Officers in the Royal Navy'⁹⁹ was clearly stated on its opening page, accounts of the Committee's work have been subject to a surprising degree of misinterpretation. The principal view has been that it was formed to provide further adjudication on the respective merits of the Portsmouth and Greenwich sites, upon which Shadwell had been unable to agree. Lloyd states

Service opinion was divided upon the advisability of the move, the First Lord, Childers decided the matter by setting up another Committee this time under Admiral J W Tarleton¹⁰⁰

Dawson supports this view, noting that 'as opinion was divided a second committee was appointed under Admiral Tarleton'.¹⁰¹ Sullivan envisages a similar role, claiming that the purpose of the Committee was 'to survey the buildings at Greenwich and make recommendations as to how they should be used'.¹⁰²

The Royal Naval College Greenwich - 'a larger more liberal institution deliberately segregated from the practical environment that most officers considered essential...'

IMAGE

IMAGE REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES

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In fact not one of these statements is accurate, as recourse to the original document confirms. Having been commissioned on 13th March 1872, the responsible First Lord was not Childers, who had retired 12 months previously, but his successor George Goschen. Neither was its task to consider the relative merits of the two sites - for a decision had been taken on that in Cabinet the previous January. The key point to make about Tarleton was that it was not adjudicatory, nor was its task to investigate and recommend a future purpose for the buildings of the Hospital, but rather it was to consider the detail required to implement a decision already taken to establish the new college therein.

The Royal Naval College, Greenwich

Having submitted a first report in June 1872 the Committee was immediately reappointed to consider detailed regulations for the admission of students. They reported in December and their findings were incorporated in a series of Orders in Council promulgated in January and February 1873. The earliest, which formally announced the establishment of the College on 16th January, noted

the object of securing by bringing together in one establishment all the necessary means for affording to Officers and others connected with Your Majesty's Navy... the highest possible scientific instruction in all branches of study bearing upon their profession.¹⁰³

This was further expanded in an Admiralty Circular of 30th January which predicted that the college would become 'a nucleus of mathematical and mechanical science especially devoted to those branches of scientific investigation of

most interest to the Navy',¹⁰⁴ although it offered the reassurance to the traditionalists that this was to be 'without prejudicing the all important practical training in active duties'.¹⁰⁵ Further regulations for the admission of students were included and the College opened for study on 1st February 1873.

In accordance with the Tarleton recommendations the new college population represented a considerable expansion over existing facilities at Portsmouth. By December 1873 the student element comprised some 13 Captains and Commanders, 51 Lieutenants, 20 Acting Sub Lieutenants, 13 Royal Marine Young Officers and more than 40 Engineers of various ranks. The initial Order in Council had envisaged Professors in five disciplines - Mathematics, Physical Science, Chemistry, Applied Mechanics and Fortification, but the register of professional staff revealed that by the end of 1873, a further 14 teaching appointments at various grades had been made.¹⁰⁶ The academic staff were led by a distinguished mathematician recruited from the University of London, Dr T Archer Hirst FRS.

The first Admiral-President was Sir Astley Cooper-Key FRS, a noted sailor-scholar and a future First Sea Lord. He was a former Superintendent of the old College where, as a student, he had served in every rank. Cooper-Key had progressed swiftly up the promotion ladder and had always associated himself with the new technology at a time when service in steam ships was much disparaged.¹⁰⁷ This record, and his established personal interest in officer education, seemed to make him an ideal choice for the new

post as President especially, as his biographer noted, since his experience with the active portion of the Service would 'command its confidence and [to] prevent any sentiment of the theoretical branch being separated from the active and the practical'.¹⁰⁸

Yet the suitability of Cooper-Key was more apparent than real. His memoirs, for example, reveal that he did not want the appointment and would have preferred a sea-going command. In a letter to the First Lord in April 1872 he stressed that the post of Admiral President was 'not a position that I should have sought for or that I consider myself fitted...' and he asked Goschen 'not to think me ungracious if I say that I accept your offer reluctantly'.¹⁰⁹ This was no token politeness, for Cooper-Key's evidence to the Shadwell Committee in 1870 revealed him to be a vigorous opponent of Greenwich. Not only did he think the location unsuitable but his stated belief that 'it is unadvisable and would be of no use to attempt to educate highly the whole body of officers',¹¹⁰ was at odds with the wider, more liberal approach that the move to Greenwich implied. For Cooper-Key it was sufficient that the profession should be 'nine tenths staffed by practical men, good seamen with very little knowledge of what might be called book learning' - the remaining one tenth 'must be this and more highly educated men'.¹¹¹

It is important to stress that the view of a more limited institution, adjacent to the naval dockyard which would accept a restricted entry of officers, was not untypical - as the preponderance of naval evidence to

Shadwell demonstrated. So general was naval feeling on the subject, that many senior officers intimately involved with the establishment of the Royal Naval College Greenwich, were on record as favouring the Portsmouth alternative. Not only was the first President in this category but so was his successor Admiral E G Fanshawe. Among other opponents were Admiral Tarleton who had headed the Committee establishing the College at Greenwich, Admiral Shadwell who was to become its third President and two original members of the Greenwich professional staff, J K Laughton and J B Harboard. The fact that Goschen was forced to depend on a number of individuals so obviously out of sympathy with the location and philosophy of the new college, was a further indication of the dominant political element in the decision to move to Greenwich.

The early years of the College saw an increase in numbers of both staff and students. In 1874 additional instructors in Mathematics (2), French and Navigation and Nautical Astronomy were appointed, and the following year an Assistant Professorship was established in the Physics department.¹¹² Additionally in 1875, an instructor in Mechanical Engineering was appointed, and practical facilities for the study of steam were established with the transfer from Portsmouth of the gunboat Arrow and the old instructional tender Bee.¹¹³ Not only were numbers increased but the entry profile was widened to include private students, officers from overseas navies and, in accordance with the Tarleton recommendations, the first 'Admiralty Pupils selected by Competitive Examination from among the Apprentices in Her Majesty's Dockyards' who were

admitted under regulations promulgated in December 1873.¹¹⁴

Despite his original reservations, Cooper-Key appears to have approached his new task with energy and enthusiasm. Colomb notes that by persistent efforts he overcame economic objections to the building of recreational and sports facilities within the College,¹¹⁵ and requests to the Admiralty resulted in facilities at Greenwich Hospital School including the Observatory and the Gymnasium, being offered to naval students.¹¹⁶ Nevertheless correspondence with the Admiralty also recorded some disparity between the Board and the Admiral President as to the nature and purpose of the establishment. Cooper-Key's initial reservations about maintaining discipline at the College 'in consequence of the quasi-civil character of the appointments of its officers' were quickly dismissed by the Board, who 'did not anticipate any difficulty will be experienced'.¹¹⁷ Neither were they prepared to accede to Cooper-Key's request that all officers should wear uniform while studying at the College,¹¹⁸ or his proposal that separate educational records for officers should be maintained within the establishment.¹¹⁹

A persistent difficulty in the opening years was to persuade the Admiralty to countenance spending on the special course of additional lectures recommended by the Tarleton Committee in 1872. While the sum total increased rapidly from 18 in 1873/74, to 66 the following year and 91 in 1876,¹²⁰ these lectures were frequently given without payment, by existing members of staff.

Despite the Tarleton recommendation that a permanent lecturer in Naval History and Tactics be appointed, and that the subject should be compulsory for all naval officers, no such position was created. It was not until the 1875/76 session, after continued pressure from Cooper Key, that J K Laughton, an existing member of the mathematics department, was authorised to give six history lectures per year.

Contemporary assessments of the early years of the College are sparse. No official report of its activities was rendered until the autumn of 1876¹²¹ and this submission was largely confined to factual detail of staff and students, with very little comment. Generally the Service press, having been bitterly critical of the original decision to go to Greenwich, were supportive towards the new institution. The Naval Chronicle for example noted that 'a really statesmanlike liberality marks the efforts of the government to render the College of real benefit to the Service',¹²² and in October 1874 a Broad Arrow editorial admitted no words for the College 'but that of congratulation derived equally from its past successes and its future prospects'.¹²³

Nevertheless it is possible to detect within the Press a concern about the progress of the institution and the need for a formal review. In 1876 a Naval History of Our Times article identified two principal sources of complaint - that the number of instructional staff was insufficient, and that the severity of the examinations was resulting in officers who had spent considerable periods at sea having little time to attune themselves to

study and hence 'failing to reach the required point they are dismissed the Service, however good they may be in seamanship and gunnery'.¹²⁴ The Broad Arrow supported this, claiming that 'during the past two years the constant complaints cropping up, either in the Press or Parliament, to the effect that officers had been expelled from the Service'.¹²⁵

The Gordon Report.

The result was that, in addition to instructing the College to submit its own First Annual Report in September 1876, in the same month the Admiralty appointed an external Committee, under the Revd. Osborne Gordon, to examine the various courses of study, the complement and remuneration of teaching staff and the conduct of examinations at Greenwich. Gordon was a former Censor of Christ Church, Oxford with considerable experience as a Civil Service and Army examiner and as a Parliamentary Commissioner. He was assisted by fellow academic H A Morgan from Jesus College, Cambridge and two senior administrators - R R W Lingen, Permanent Secretary to the Treasury and J F Donnelly, Director of the Science and Art Department. The Broad Arrow noted these appointments approvingly, claiming that the names of the Committee members alone 'are a sufficient guarantee that the enquiry would be conducted in an independent spirit, and that it would be neither narrow nor shifty'.¹²⁶

The Gordon Committee was appointed on 29th September 1876 and examined 17 witnesses, all of whom were intimately connected with the Royal Naval College,

Greenwich. In contrast to Shadwell, whose evidence was gathered from a limited catchment of senior officers, this Committee examined a broader cross section from the College. This ranged from the Admiral President and his Director of Studies, to seven young Lieutenants and Sub Lieutenants who were studying, or had recently qualified, at Greenwich. The report, issued on 24th March 1877, was presented in eight sections - four dealing with staff, students, lectures and 'additional subjects', three with the remuneration of staff, examiners, and administrative support, and the last chapter constituting a summary of recommendations.

It opened with a consideration of the various classes of students, and asked whether the existing courses of study and the arrangement of staff were appropriate. It was felt that the student body fell into three distinct groups. Class A consisted of Lieutenants qualifying as gunnery officers, several classes of engineers and naval architects and probationary officers of the Royal Marine Artillery. Although this was a somewhat disparate grouping, the one common factor was that they were all studying to the most advanced levels offered, and were following 'fixed and compulsory courses of study, arranged with reference to the duration of the session'.¹²⁷ The Committee were satisfied with this group, whose work was characterised by diligence and application, and they concluded there was 'very little deficient either in the quantity or quality of the higher instruction' and that they had not met a student who was not 'perfectly satisfied with the assistance he received'.¹²⁸

Class B were officers of various branches who had chosen to attend the College voluntarily and thus were part of a long and thriving tradition established at Portsmouth in 1829. The importance of 'half pay study' had been recognised by both Shadwell and Tarleton, and when the new College was established, provision was made to increase the number of places in this category. The Gordon Committee made clear, however, that these expectations had not been fulfilled. Of the 25 vacancies for Captains and Commanders only six had been filled in 1875, two the following year and nine in 1877. While the number of Lieutenants was more buoyant, it had never reached its theoretical capacity and the class of 1877 was the lowest for three years. Not only were numbers low, but attendance was poor - the half pay Lieutenants course examined by Gordon averaging some 30 hours absence per 100 hours instruction. In these circumstances the Committee concluded 'it is quite clear that a good deal of the time of the instructors and the money of the country, must be spent to no purpose'.¹²⁹

By far the most unsatisfactory group, however, were the third category of students - acting Sub Lieutenants sent to the College to complete the education they had begun five or six years previously in the Britannia. The level of this course was not advanced, for the examination papers were virtually identical to the ones set in the training ship¹³⁰ and the students were thus merely required, in the view of the Committee, to recapitulate at the age of 20 or 21 what they had learnt when they were 15. Despite the fact they were studying full time at the

College on a six month course, significant numbers were unable to complete the course without resorting to private tutors, often at considerable expense, in order to pass.

Several factors were evident in these low rates of attainment, but the principal one appeared to be the disparity in student ability on entry to the College. While they had all demonstrated their competence prior to passing out of the Britannia, the intervening five years had seen young officers posted to a number of different ships, where educational facilities varied considerably. A Cadet posted to a flagship for example would be virtually guaranteed the services of a naval instructor, while those going to smaller vessels might spend the whole of their sea time without access to further study. The result was that by the time, as Sub Lieutenants, these officers arrived at Greenwich, the less fortunate, who had been denied instruction, had often forgotten all they had learnt. The College practice of entering Sub Lieutenants in irregular numbers, at various stages throughout the session, and without any form of ability grouping, did little to alleviate the short comings of the weaker candidates.

This problem was, in the view of Gordon, outside the power of the Greenwich authorities to solve, for it depended upon making improvements in the training process earlier in an officer's career. This in fact had already happened and the Sub Lieutenants examined by Gordon, as they acknowledged, were the products of a system that had been superceded. These improvements constituted an overhaul of the Britannia course which reduced the number

of subjects studied, and the introduction of periodic examinations afloat, for young officers in sea going ships. The combination of these two measures, argued the President of the College Admiral Fanshawe, would 'do away to a great extent with the extreme ignorance of some who came here'.¹³¹

The Report then briefly examined the staffing situation at the College and, although the remit was simply to consider the remuneration of academic staff, they allowed themselves some brief but significant observations about the place of higher education in the Royal Navy. In particular, they called for an advancement of the status of the College within the Service, arguing that it was

desirable to remove, as far as possible from the minds of executive officers of the Royal Navy, who are under instruction in it, the impression that they are simply going through on shore the same sort of instruction as they might have been going through under a naval instructor in a ship of war. The youngest of them are men to whom the idea of going back to school again must be naturally repulsive.

A new approach, argued the Committee, was needed so that the Naval College might stand to the Britannia, as the universities stood to the public schools. This was all the more important in a Service establishment which could not be 'governed by those who teach, or by those who are drawn from the teaching body',¹³² and must have teachers who 'appear to occupy a secondary place in precedence, in salary, in power'.¹³³ Such difficult conditions required an

academic staff of 'strong men to hold their own', and the Committee affirmed that under T Archer Hirst's leadership, such a situation prevailed.

It was not within the terms of reference of the Committee to examine the course of study for the various classes of officers, but they were asked to consider what might be taught under the category 'additional subjects' and what courses of study might be delivered beyond those given by the permanent staff. In doing so, they did in fact comment generally on the overall nature of the College curriculum. While no issue was taken with the view that the central core of College teaching should be mathematical, the Committee argued that the task of the establishment should be seen as two-fold. The primary aim was 'to increase the technical knowledge and skill of naval officers', and the secondary aim to cultivate 'their general intelligence, to improve their aptitude for the various duties which a naval officer is called upon to perform'.¹³⁴ To this end, while fully supporting 'an intelligent apprehension of the principles on which the technical rules of the profession are founded',¹³⁵ Gordon felt that, for more senior courses in particular, a wider field of study, possibly encompassing physics, applied mechanics, modern languages, history, political geography and international law, might be pursued.

Very little of the broader philosophical discussion about the future purpose of the college, the nature of its curriculum and its place in the Service was distilled into firm recommendation. Although the Committee listed some 35 measures which they felt would improve the conduct of the

establishment, these were almost totally administrative in nature and dealt principally with pay and the appointment of teaching staff, modified arrangements for the conduct of examinations and measures to ensure regular student attendance. While in a sense this was disappointing, it is important to emphasise that it was fully in accordance with the Committee's original remit, which was not to examine the overall efficiency of the establishment, but to consider specific aspects of teaching and administration. Thus it may be argued that the principal value of the Gordon Committee to an understanding of the overall development of naval education lay, not in its recommendations, but in the wider picture of the College that its deliberations provided. While Lloyd has argued that this merely amounted to 'an unflattering light on the educational standards of the day',¹³⁶ this seems too sweeping a dismissal.

There can be no doubt that the standards of the largest group, the Sub Lieutenants, remained low, although lack of diligence and a heavy reliance on private tutors was a traditional characteristic of such officers. T J Main, Professor at the Royal Naval College, Portsmouth, had complained to the 1870 Shadwell Committee that the institution was condemned to spending its time preparing backward Sub Lieutenants for their examinations noting that the students 'come to us to pass, not to be educated'.¹³⁷ The evidence offered to Gordon suggested that this problem remained unresolved, and an independent contemporary commentator observed that, despite official discouragement, about half the Sub Lieutenants entering the College in

1877 were employing private tutors.¹³⁸ The problem of course, lay not with Greenwich but with the inadequacy of the education process prior to the students' arrival - in particular the five year period spent at sea after passing out of HMS Britannia. Here all the traditional problems of attempting education at sea - inadequate numbers and poor standards of instruction, uneven provision and a general conflict between the study process and the demands of an operational warship remained in abundance. Until they were resolved, no modification of courses at the Greenwich career point could be effective.

In most other areas the first four years of the new College saw considerable improvement. The overall number of students - some 200 studying at any one time - represented a three-fold increase over numbers at Portsmouth and the profile was widened considerably. By 1877 the College was welcoming not only private civilian students but also the first officers sent from foreign navies, Japan, China and Denmark, to study at Greenwich. Perhaps the most significant addition to the student body was from within the Royal Navy itself, with the arrival of the Assistant and Acting Assistant Engineers who previously had been subject to largely practical training. They soon constituted the second largest group, after the Sub Lieutenants, undertaking compulsory courses and, unlike their military counterparts, they were noted for particular diligence. While the pertaining social niceties condemned them to separate messing facilities, their presence in significant numbers was indicative of a trend towards methodical, disciplined instruction essential to the

operation of the new technology.

Similar improvements applied to the teaching staff and the prediction first advanced in the Shadwell Report, that higher quality teaching would result by establishing at Greenwich, appeared to be fulfilled. An American academic, Professor James Soley, directed by the United States government to report on the British system of naval education, noted that the Greenwich staff were 'chiefly Cambridge men of high university standing eminently fitted to carry out the purposes of the College'.¹³⁹ Of T Archer Hirst, the Director of Studies, he noted that he was 'one of those rare instances of the harmonious union of a profound student and an efficient organiser'.¹⁴⁰ By 1877 the permanent complement comprised some 31 teaching staff, including six Professors, two Assistant Professors and a mixture of naval and civilian lecturers. A further six academic staff were appointed on a yearly basis, which with visiting lecturers and support staff brought the total involved in training in that year to 50 - more than five times the number involved at Portsmouth.

To support this level of activity, annual expenditure on the higher education of officers was considerably increased, and the £31,000 per annum envisaged by the Tarleton Committee was soon exceeded, with more than twice this amount allocated in the financial year 1873-74, and an average expenditure on the College of £45,000 for the following three years.¹⁴¹ By 1877 this was supporting what Soley described as 'a well appointed professional college' on a site which 'seemed to fit it peculiarly for a training place of naval officers'.¹⁴² In addition to the model

collection and the Observatory, now transferred from Greenwich Hospital School, the range of laboratories constructed since 1873 were 'especially well appointed, having been furnished with everything required for the advanced study of physics and chemistry, with the greatest care and at very considerable expense'.¹⁴³

Conclusion

A general comparison of the Portsmouth institution in 1869 and the Royal Naval College Greenwich eight years later, provides a dramatic contrast, and helps to illustrate the extent of the development of higher education over the period. An examination of the process that produced this change however reveals that it was far from a simple or straight forward one. In particular it dispels the notion that the technological advances in ship design and weapons development that characterised the Royal Navy's industrial revolution from 1860 were followed swiftly and inevitably by changes in the higher education of its officers. It is apparent rather that for more than ten years after the launching of the first iron clad battleship, the advanced training of executive officers was characterised by a small, under-funded establishment attempting to train a token number of officers via a dedicated, talented but ultimately inadequate staff.

While it is possible to detect an increasing interdependence between executive and technical officers during the 1860s, and a general consensus in the Service press that higher education should be overhauled, it is clear that the key element in initiating change was the

appointment of the Shadwell Committee, undertaken by H C E Childers. Modern assessments of his short administration have been almost totally hostile, with much emphasis placed on Childers' disinclination to accept advice, and his blunt and offensive manner. His taste for interfering in strictly naval matters and the triumph of the political over the professional dimension in Admiralty affairs that his reorganisation of the Board structure precipitated, have produced similar adverse comment. Yet, while these activities won him few friends amongst naval or civilian staff, there can be little doubt that a number of his reforms, including the reorganisation of the dockyards, the scheme of compulsory retirement and the enquiry into the higher education of naval officers were both perceptive and long overdue.

Indeed it may be argued that Childers' single mindedness and indifference to personal unpopularity were important ingredients in the method of reform. The fact that he established an autocratic structure with all lines of responsibility leading to his office, undoubtedly allowed the subject of naval education to be moved up the agenda. While previous First Lords, notably Somerset and Corry, had occasionally expressed interest in the subject - the former particularly keen to establish a shoreside college for Cadets in the early 1860s, they had never seen it as a matter for personal initiative. The Childers' approach, which dispensed with collective discussion and allowed the First Lord unparalleled freedom, meant that matters in which he was personally interested, including in this case education, could be awarded a precedence unknown

under the old system.

The Shadwell Report was clearly a significant document in a number of respects, not least because in recognising the values inherent in the British system of officer training - early age entry, and the rigorous environment designed to instill hardiness and ascetism, it also established that a return to full time academic study was a natural corollary. Henceforward, higher education was not an addendum to the training process, but an integral part of it. Although the Shadwell Committee felt initially that this might be undertaken without compulsion - a view which the performance of voluntary students at Greenwich later brought into question, they did establish that pay and seniority should not be penalised for academic endeavour. From 1870 onwards, higher education was seen not merely as desirable, but as a routine component in an officers' career.

It has been noted that a gap existed between the rhetoric of the Shadwell Report and its recommendations. To some extent this was inevitable given the view of those examined, who were predominantly senior serving officers with a narrow technically orientated view of the purposes that advanced study might serve. On the basis of the evidence offered it was hardly surprising that, while acknowledging the importance of higher education, the Committee's concept should amount to little more than an extension of the existing College, with similar numbers of students and staff, and no wider purpose to training. Nevertheless, it was clear that some form of College training now commanded the support of even the most

conservative of officers. While most were content to see the institution as an adjunct to the dockyard - indeed few could understand its value in any other location, it was apparent that the antipathy to formal academic training evident in the 1830s and 40s, had now gone.

That the future of naval higher education should by 1873 be invested in a very different, larger more liberal institution, deliberately segregated from the practical environment that most officers considered essential, has not previously been satisfactorily explained. Callender's view that if the Portsmouth site had been chosen 'it would have been necessary to spend hundreds of thousands of pounds on the erection of buildings',¹⁴⁴ is not supported by the evidence. Indeed, it was a cardinal point of the Portsmouth case that no such new work was required and that the existing defects of the building 'could be remedied by refitting and remodelling the interior of the College',¹⁴⁵ at minimal expense. Nor is there any substance in Sullivan's view that 'Greenwich Hospital was available for occupation at little cost',¹⁴⁶ - for even the Greenwich lobby within the Shadwell Committee acknowledged that this was a much more expensive option.¹⁴⁷ This was confirmed by Sir John Tarleton's investigation,¹⁴⁸ and retrospective costings cited in the Gordon Report show the annual cost of the new establishment to be more than ten times the Portsmouth yearly budget.¹⁴⁹

Interpretation of the two and a half year interval between the issue of the Shadwell Report and the opening of the new College has been similarly confused. Several commentators, including Lloyd, Sullivan and Dawson, have

attributed the delay to a division within Shadwell as to the more suitable site, and the need to appoint a second working party, the Tarleton Committee, to arbitrate on the matter. It has been shown, however, that this was not the Committee's task and that the decision had been taken, and the new Admiral President briefed, by the time this group was established. The purpose of Tarleton was thus not to adjudicate, but to carry out a confidential, detailed investigation of how the new College should be founded on the Greenwich site.

It is, in fact, impossible to explain either the delay, or the eventual Admiralty decision, without further reference to the wider political background of the period. Within this, Childers' personal advocacy of educational reform has been shown as paramount and his resignation in March 1871 undoubtedly removed much of the impetus behind the implementation of Shadwell. His successor's early months in office were some of the most difficult of any First Lord in the second half of the nineteenth century and were unlikely to bring forward an issue which had previously held such a low priority. All the available evidence suggests that the Shadwell Report was in fact, shelved, and that it attracted no consideration by the Admiralty from its issue in July 1870 until Greenwich Hospital was offered as a political gambit by Goschen to his leader in October the following year. Similarly, while within the Report the case for Greenwich was cogently argued on sound educational grounds with an emphasis on a more liberal establishment with high quality teaching, deliberately segregated from the naval environment, there is no evidence that a

consideration of these factors formed any part of the decision.

Subsequent government behaviour confirmed the expedient nature of the decision and was characterised by a pattern of obfuscation and deceit - illustrated in particular by the persistent public assurance that the matter was still unresolved, many months after a final Cabinet decision had been taken, and a Committee appointed to implement the details. The postponement of discussion on the matter until the very end of the Parliamentary session and the allocation of obscure sums of money in late night discussions also contributed to the view, widely held in the Service press, that the move to Greenwich was nothing more than a 'job'.

The irony was that, in the light of subsequent naval developments, the decision to move was undoubtedly the correct one on a number of counts. Only at Greenwich, for example, was the institution capable of expanding to accept increased numbers of staff and students, and only on this site was space available to incorporate the School of Naval Architecture, whose amalgamation allowed shipwrights, engineers and executive officers to study alongside each other. Although it was not fully recognised at this stage, the buildings of the old Hospital afforded the potential to found an establishment of a size and stature that would suitably reflect the expanding Royal Navy of the last two decades of the century.

It was quite clear that, even at its inauguration in February 1873, the College represented a larger and more complex organisation, with greater numbers of staff,

students and courses than had been envisaged in the Shadwell Report. Much credit for this must be given to the Tarleton Committee who, although their remit was to consider the fine detail of the arrangements for the new College, produced a much expanded view of what the new institution might achieve. It should also be noted that in some respects this exceeded the plans that eventually came to fruition. It was recommended by Tarleton, for example, that a permanent lecturer should be appointed to teach Naval History and Tactics and that this should be a compulsory subject for naval students. Other recommendations included the appointment of a Natural History and Botany lecturer, and a teacher of Hygiene - although neither of these posts was filled by 1878.

Had the Tarleton recommendations been fully implemented they would have undoubtedly helped to deflect much of the criticism that in conception the new College was 'exclusively and narrowly technical',¹⁵⁰ and that 'no education was given which tended to broaden the mind or develop the powers of informed judgement'.¹⁵¹ At face value both these criticisms have some substance, yet in terms of the educational progress of the Service they take no account of the substantial relative improvement that the decision to move to Greenwich had achieved. For most naval officers who favoured a smaller institution within the naval arsenal, teaching practically based courses to a fraction of the officer corps, the new College was already more liberal than they expected or believed necessary.

In this respect the relatively slow progress of the new institution, and in particular the tardy approach of the management towards a wider curriculum via paid external

lecturers in the numerous 'additional subjects' recommended by Shadwell, may be placed in context. Quite simply while the leadership and management of the institution lay in the hands of men like Cooper-Key, Fanshawe and Shadwell, all of whom had supported an even narrower concept of higher education, progress would inevitably be slow. Indeed, it was not until the arrival of Sir Richard Vesey Hamilton in 1891, that an officer who had previously declared himself in favour of Greenwich, became Admiral President. While the undoubtedly talented civilian academic staff could have played a part in widening the curriculum they were destined, as the Gordon Report made clear, 'to occupy a secondary place in precedence, in salary, in power'.¹⁵² Within a military hierarchy the College could only develop at a pace dictated by the Navy and, as the Shadwell survey of serving officers made clear, this was inevitably conservative and pedestrian in nature.

By 1877 the initial transformation of the Royal Navy's higher education system was complete. This change was the product of a complex series of events in which bureaucratic overhaul, personal initiative and political expediency were intricately woven into the proper requirement for change. Despite justifiable criticisms of a technical and vocational bias, higher training was undoubtedly of a scale and nature that could not have been foreseen a decade previously, and while initial progress was slow and the distinction between the determination and the application of policy was rigidly upheld by the Admiralty, by 1877 the College had established the conditions that would enable it to react to the naval revolution of the last decade of the century.

Chapter Four - Notes

1. The Queen's Regulations and the Admiralty Instructions for the Government of Her Majesty's Naval Service (QR & AI)(1862) p66
2. ibid
3. Broad Arrow 6 May 1871 p556
4. O Parkes British Battleships (1966) pl56
5. G Penn Up Funnel, Down Screw (1955) p98
6. C W Hope 'The Education and Training of Naval Officers' p33
Blackwoods Magazine November 1869
7. The Times 11 March 1871
8. Broad Arrow 6 May 1871 p556
9. D Thomson England in the Nineteenth Century (1950) pl31
10. H C Matthew The Gladstone Diaries Vol VII (1982) plxx
11. A Tilney-Bassett Gladstone's Speeches - A Descriptive Index and Biography (1916) p20
12. E Sweetman The Educational Activities in Victoria of the Rt Hon H C E Childers (1940)(Melborne) pl18
13. S Childers The Life and Correspondence of H C E Childers Vol 1 (1901) pl21
14. ibid p126
15. Admiralty Circular 7 January 1869 ADM 116/861/16
16. N A M Rodger The Admiralty (1979) pl09
17. S Childers op cit pl69
18. vide Chapter Two
19. The Naval Staff of the Admiralty - Staff Monograph BR(1929) pl1
20. ibid
21. Childers to Sir S Dacres 28 August 1869 ADM 1/61
22. ibid
23. Admiralty Board Minutes 28 January 1870 ADM 167/
24. Instructions to the Committee on the Higher Education of Naval Officers 28 January 1870 ADM 116/9/
25. ibid
26. ibid

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| 27. | <u>Dictionary of National Biography</u> | | |
| 28. | ibid | | |
| 29. | <u>Committee on the Higher Education of Naval Officers</u>
<u>The Shadwell Report C.203(1870)</u> | | px |
| 30. | ibid | | |
| 31. | ibid | | pxi |
| 32. | ibid | | px |
| 33. | ibid | | |
| 34. | ibid | | pxi |
| 35. | ibid | | |
| 36. | ibid | | pxiv |
| 37. | ibid | | pxiv |
| 38. | ibid | | |
| 39. | ibid | | pxvi |
| 40. | <u>Navy List</u> | (correct to 20 December 1869) | |
| 41. | <u>Shadwell</u> | op cit | piv |
| 42. | ibid | | pxix |
| 43. | ibid | | pxx |
| 44. | ibid | | pxix |
| 45. | ibid | | pxx |
| 46. | ibid | | pxxi |
| 47. | ibid | | |
| 48. | ibid | | |
| 49. | ibid | | p98 |
| 50. | <u>Tarleton Papers</u> | Microfilm Section, Central Library Liverpool | Reel 5/
MSS 164 |
| 51. | ibid | | |
| 52. | | vide Chapter Two | p |
| 53. | <u>Shadwell</u> | op cit | pxviii |
| 54. | ibid | | pxxii |

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| 55. | ibid | pxvi |
| 56. | ibid | p72-111 |
| 57. | <u>Hansard 3rd Series VOL CCVI (1871)</u> | c2013 |
| 58. | ibid | c2016 |
| 59. | ibid | |
| 60. | <u>Hansard 3rd Series VOL CCXI (1872)</u> | c173-18 |
| 61. | <u>Admiralty Order in Council 16 January 1873</u> | <u>ADM 1/62</u> |
| 62. | <u>Journal of the Royal United Services Institution 20th March 1871 and 26th June 1871</u> | |
| 63. | <u>Naval Chronicle</u> 1 July 1871 | p75 |
| 64. | <u>United Services Magazine</u> January 1872 | pl3 |
| 65. | Inscription on the frieze, Lower Hall, Painted Hall Royal Naval College | |
| 66. | <u>Naval Chronicle</u> 1 November 1869 | pl22 |
| 67. | <u>United Services Magazine</u> April 1870 | p484 |
| 68. | <u>Naval Chronicle</u> 1 December 1871 | p86 |
| 69. | Now Goldsmiths College, University of London | |
| 70. | <u>Broad Arrow</u> 14 November 1871 | p580/81 |
| 71. | H C Matthew op cit | pxcii |
| 72. | ibid | |
| 73. | ibid | pxciii |
| 74. | Goschen to Gladstone 27 October 1871 <u>Gladstone Papers</u> MS 44161
This letter is clearly important both in explaining Gladstone's relationship with his constituency and in demonstrating that the decision to establish the new College at Greenwich was primarily motivated by political expediency. Its significance has not perhaps been previously appreciated because the letter has been mis-filed in the Gladstone collection at the British Museum under correspondence for the following year, and thus its chronological significance has been lost. | |
| 75. | ibid | |
| 76. | Gladstone had received a number of constituency delegations in the preceding years, all attempting to press upon him the hardship incurred by workers involved in the 1869 dockyard closure programme. Up to this time that had received little response beyond homilies on the national need for reduction of government establishments.
- H C Matthew op cit pxcii | |
| 77. | Goschen to Gladstone 27 October 1871 Gladstone Papers | MS 44161 |

Chapter Four - Notes (continued)

78. A Tilney-Bassett op cit p402
79. ibid
80. Gladstone Papers Diary 30 January 1872 MS 44640
81. First Report of the Committee appointed to consider and arrange the Establishment at Greenwich Hospital for the Education of Officers in the Royal Navy (The Tarleton Report)(1872) ADM 1/623
82. Hansard 3rd Series VOL CCXI (1872) cl80
83. Broad Arrow 10 August 1872 pl72
84. ibid
85. Hansard op cit (1872)
86. Tarleton Report op cit
87. Broad Arrow 10 August 1872 pl72
88. Hansard 3rd Series VOL CCXIII (1872) c286
89. United Service Magazine Part One 1873 p343
90. ibid p342
91. Tarleton Report op cit p5
92. ibid p9
93. ibid
94. ibid p6
95. ibid p9
96. ibid
97. ibid
98. ibid
99. ibid p4
100. C Lloyd 'The Royal Naval Colleges at Portsmouth and Greenwich' Mariners Mirror (1966) Vol 2. pl49
101. C M Dawson The Story of Greenwich (1977) p90
102. F B Sullivan The Evolution and Development of Education in the Royal Navy 1702-1902 Reading PhD (1974) p343
103. Admiralty Order in Council 16 January 1873 ADM 1/6236
104. Admiralty Circular 8c 30 January 1873 ADM 7/893

Chapter Four - Notes (continued)

105. ibid
106. Committee appointed to inquire into the establishment
of The Royal Naval College Greenwich (The Gordon Report)
cl733 (1877) pp78-80
107. vide Chapter Two
108. P H Colomb Memoirs of Sir Cooper Key (1898) p397
109. ibid
110. ibid p394
- 111.
112. Gordon Report op cit pp78-80
113. Papers relating to the Royal Naval College Greenwich ADM 203/
114. ibid
115. P H Colomb op cit p401
116. ADM 203/1 op cit
117. ibid
118. ibid
119. ibid
120. Gordon Report op cit p84
121. First Report on Royal Naval College C.1672 (1876)
122. Naval Chronicle 1 February 1873 p13
123. Broad Arrow 17 October 1874 p481
124. A Naval History of Our Times 1 January 1876 p13
125. Broad Arrow 5 May 1877 p546
126. ibid
127. Gordon Report op cit piii
128. ibid piv
129. ibid
130. ibid pvi
131. ibid pvii
132. ibid pviii

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| 133. | ibid | |
| 134. | ibid | pxx |
| 135. | ibid | |
| 136. C Lloyd | op cit | pl51 |
| 137. <u>Shadwell Report</u> | op cit | p3 |
| 138. J R Soley | <u>Report on Foreign Systems of Naval Education</u>
(1880) (Washington) | p70 |
| 139. | ibid | p49 |
| 140. | ibid | |
| 141. <u>Gordon Report</u> | op cit | p88 |
| 142. J R Soley | op cit | p51 |
| 143. | ibid | |
| 144. G Callender | 'An Educational Centenary December 1838 -
December 1938' <u>Mariners Mirror</u> (1939) Vol 25 | pl9 |
| 145. <u>Shadwell Report</u> | op cit | pxix |
| 146. F B Sullivan | op cit (1974) | p343 |
| 147. <u>Shadwell Report</u> | op cit | pxxii |
| 148. <u>Tarleton Report</u> | op cit | pl0 |
| 149. <u>Gordon Report</u> | op cit | p88 |
| 150. <u>Staff Monograph BR 1875</u> | op cit | pl4 |
| 151. N A M Rodger | 'British Naval Thought and Naval Policy, 1820-1890'
in <u>New Aspects of Naval History</u> ed Symons (1981) | pl48 |
| 152. <u>Gordon Report</u> | op cit | pvi |

Chapter Five

The fortunes of HMS Britannia 1869 - 1877

Abstract

This Chapter considers the fortunes of HMS Britannia from January 1869 until December 1877. It examines the contribution of the Childers' administration with respect to Cadets' training, and outlines the work of the previously unconsidered Woolley Committee responsible for devising a new curriculum for the ship.

The deliberations of the first major Committee to examine standards in the Britannia - the Rice Committee - are examined in detail and the validity of their findings is contested. The subsequent fate of their recommendation to establish a naval college ashore is pursued and existing assessments of government conduct in the matter are challenged.

The Work of H C E Childers and Joseph Woolley

The advent of a Liberal government in December 1868 and in particular the appointment of H C E Childers as First Lord, saw the introduction of a series of measures to reform not only officers' higher education but also the training and education conducted in HMS Britannia. Considerable progress had been made since the ship's arrival at Dartmouth in the autumn of 1863. Sick quarters had been built ashore, sports fields constructed and a beach established where ships' boats might be recovered and launched. Despite these improvements it has been shown that aspects of life in the Britannia in the 1860s continued to attract criticism. The nature and extent of corporal punishment for example had been the subject of a parliamentary question in 1867 and had led to the early reappointment of the commanding officer. Statistical returns from the Medical Director General continued to cite long sick lists from the ship, which were characterised by persistent outbreaks of scarlet fever and smallpox. There had also been adverse comment in the Service press concerning the lack of external moderation for the education and examinations carried out on board.

To his credit the previous First Lord H T L Corry had attempted to deal assiduously with these problems. The practice of corporal punishment, which has been shown was never prevalent in the early years of the ship, was abolished altogether in July 1867. In the same year it was decided that the existing Britannia, which had been laid down in 1813 and launched in 1829, should be paid off and a later, more commodious, ship found to replace her. Corry

was also sensitive to criticism of the educational routine and his Director of Education, Joseph Woolley, was dispatched to Dartmouth to enquire into the syllabus and assessment procedure, with the result that in 1868, the conduct of all examinations in the ship became his responsibility.

Yet despite Corry's undoubted diligence the arrival of the Childers' administration initiated a quickening in the pace of change. The new ship, for example, which had been promised as early as June 1867 became a reality within six months of Childers' arrival at the Admiralty. The 131 gun Prince of Wales had been laid down as a first rate wooden battleship in 1848 and was launched in 1860 by which time, despite the addition of an 800 HP engine, she was obsolete. At 3186 tons she was larger than her predecessor and had been originally designed for a complement of 1100 men. The ship was renamed Britannia and with the Hindustan served as the home of officer training until the advent of a College ashore in 1905.

The arrival of the new ship was closely followed by the framing of new regulations for the entry and examination of Cadets published on 3rd August 1869.¹ These applied to candidates who would sit the entrance examination in the following November and, if successful would join the Service on 15th January 1870. Apart from the minor modifications of February 1865² the rules governing entry had remained unchanged for almost a decade and, in the spirit of the new reforming administration, the 1869 regulations represented not only a modification to training and education, but also an attempt to grapple with more

fundamental manpower problems within the Service

These changes included the narrowing of the age limits for entrance which from June 1870 were to be 'not less than 12 or above 13 years of age'.³ The Britannia course was to be extended to a full two years, followed by a further 12 months in a sea going training ship. In addition to the usual birth and health certificates candidates were now required to produce evidence of good conduct 'from the masters of any schools at which they may have been educated within the previous two years'.⁴ The entrance examination was still to be conducted at the Royal Naval College, Portsmouth but as with the Britannia examinations, the test was now under the direct supervision of the Admiralty Director of Education.⁵

The most radical change, however, applied to the number of candidates who on completion of the initial examination would be permitted to enter the Service. Until the advent of the nineteenth century, with the exception of those who attended the Naval Academy, the selection of recruits lay not with the Admiralty but with individual commanding officers, prepared to take young gentlemen and train them for the Lieutenant's exam. By 1857 the development of an Admiralty bureaucracy which sought to control quality and numbers had made deep inroads into this vested interest via entrance examinations, medical screening and the pattern of education and training implicit in the training ship. Yet despite these advances, even by 1869, candidates permitted to sit the entrance exam were still the 'nominations' of senior officers and, assuming they were successful, the Admiralty were bound to take them.

The question of nomination was a vexatious one, for it compounded Admiralty calculations already only vaguely based on the current strength of the Lieutenant's list, by introducing a further variable into the numbers. Neither could the administrators necessarily put their own house in order, for there was an important political dimension in the process. Explaining why almost 100 more Cadets had joined in the year 1859 than 12 months previously, the Naval Chronicle noted without comment that in that year a change of government had taken place and 'the claims of two different parties for a share in the patronage of the Admiralty had to be satisfied'.⁶ The situation did not pass unnoticed and an attempt was made to appoint a Select Committee to examine the subject in 1860.⁷ This did not find favour with the Liberal administration of the day whose spokesman noted that any change would be detrimental to the interest of senior officers and 'an act of great injustice towards those officers and a great act of unpolicy'.⁸

Discontent with the system persisted nevertheless and by 1868 the Naval Chronicle was suggesting that the distribution of nominations to Naval Cadetship was both corrupt and 'extensively used as a means of strengthening the government of the day'.⁹ In support of this it noted that when the present Admiralty came into office it was found that the list of nominations for Naval Cadetship had been filled by the previous Board for the next 18 months.¹⁰ Not only was the system corrupt, argued the paper, but it was an important element in the chaotic manpower situation in which the Service had twice the number of subordinate

officers it needed, a shortage of Lieutenants and no means of retiring inefficient senior officers.

A fundamental review of the Navy's manpower policy was an early priority for the Childers' administration and the First Lord set to the task with diligence, energy and his noted disregard for the sensitivities of senior officers. His first target was the system of promotion and retirement.¹¹ In every rank an upper age limit was introduced beyond which compulsory retirement, with new improved rates of pension, was enforced. While this measure caused outrage amongst many senior officers and earned Childers widespread antipathy, it was an essential reform and one which has been seen as an indispensable preliminary to real change in the Service, particularly in the 1890s, when early promotion helped identify capable and intelligent officers.¹²

What is less seldom appreciated is that Childers' reforming zeal applied not only to retirement but also to the entry regulations. That this should be so was entirely logical, for there was clearly little point in introducing a series of measures to establish the orderly exit of officers from the Service, if the numbers and quality of those entering were still determined on a relatively 'ad hoc' basis. Circular 46 in fact contained a clause as radical as anything in Childers' retirement policy. In paragraph four it was announced that

The number of naval cadets to be entered at each examination will be determined by the Admiralty, and twice the number to be entered will be nominated to compete for cadetships.¹³

This signalled the advance of 'limited competition' which

simultaneously regulated numbers entering, and ensured that only the top 50 per cent of all nominations could be successful. It marked an important advance in the Admiralty's long running battle with the vested interest of its senior officers for, while Admirals, Commodores and Captains could still put nominations forward, the total could only be twice as great as the number of vacancies and no place could be guaranteed.

In accordance with the new meritocratic approach Circular 46 outlined in detail a more demanding entrance examination. This comprised a preliminary test in English, French, Arithmetic and Scripture History which, only when successfully completed, would allow the candidate to proceed to a further paper which consisted of:

(f)	Arithmetic; miscellaneous examples	100
(g)	Algebra; the first four rules and fractions. (Miscellaneous questions)	100
(h)	Euclid. Book 1 to Prop. XXII	100
(i)	French. Translation of English into French.	100
(k)	Latin. To read, translate, and parse a passage from the first two books of Caesar's De Bello Gallico, or Virgil's Aeneid, and to translate easy passages from English into Latin	100
(l)	English History. From the commencement of the reign of James I to the present day	100
(m)	The outlines of modern geography	100
(n)	Any one living foreign language except French. To read, translate, and parse a passage, and to render an English passage into it	100
(o)	Elementary drawing	100 ¹⁴

The successful candidates would be appointed to HMS Britannia where their parents would be charged fees of £70 per annum for their son's education and a slightly smaller sum for the year spent in the sea training ship.

Most commentators cite Circular 46 in their accounts of the period although none appears to realise that the regulations were almost immediately revised to appear as Circular 3c of January the following year. The reason for this unusual step was that in October 1869, three months before the first Cadet would enter under the new scheme, the Board decided to appoint a small Committee to examine the new regulations and suggest a course of education to be followed in both the Britannia and the sea going training ship.¹⁵ Such a decision was logical enough, for as the entry regulations had changed and as Cadets were to be accepted at a younger age via competition, there were clear implications for the curriculum.

Yet there is also evidence that Childers was personally unhappy about the arrangements for Cadets' education even in the wake of the August 1869 revision.¹⁶ His Director of Education, Joseph Woolley was similarly concerned that the Admiralty should not fall into the trap of revising the entry regulations while doing nothing about the actual training in the ship. In October 1869 he wrote to Sir Sydney Dacres, First Naval Lord,

Considerable pains being taken in the new order to secure a fair amount of attainment in the Candidates for Naval Cadetships, it seems to me most important that before they join Britannia,

a scheme for their instruction during the two years they are to remain there should be carefully considered and laid down.¹⁷

Central to Woolley's concern was that 'the course should not be drawn up by any one person' and especially that 'counsel should be taken with someone not directly in the Admiralty Service'.¹⁸ He envisaged heading a small committee to examine the curriculum, which he suggested should consist of Alfred Barry, formerly headmaster of Cheltenham School, Captain R A Powell a past commanding officer of the Britannia and T J Main, Principal of the Royal Naval College, Portsmouth.

Reaction to the Woolley minute was indicative of both Childers' personal interest in naval education and of his singular autocratic approach to the management of change in Admiralty affairs. Within three days of the proposal to Dacres, the First Lord had personally intervened and had written, not to the nominees, but to his own son's headmaster, H M Butler of Harrow School, inviting him to join the Committee to review the curriculum in the Britannia. Childers apparently saw Butler's presence as essential for he noted that he would 'take no further steps in the matter, until I hear from you'.¹⁹ Having received a favourable reply the First Lord, again writing personally, approached Woolley's nominees and, with the addition of R M Inskip, Naval Instructor HMS Britannia, by the 29th October 1869 less than two weeks after Woolley's original suggestion, the Committee was formed.

Unlike the Shadwell Committee who interviewed numerous witnesses personally, took evidence by Circular,

and whose findings were presented to Parliament in Command Paper form, the Woolley Committee was an internal working party whose deliberations were classified 'Confidential' and were for the sole use of the Admiralty Board. No detailed guidance was offered to the Committee, although letters of appointment noted that the extension of training time in Britannia 'will offer facilities for devoting the first two years more to mathematics and navigation and less to seamanship',²⁰. The only other stipulation was that as the new term was to commence in the following January 'it will be well to have the course settled soon'.²¹ This was complied with, and the report presented in sections dealing with the entrance examination, the curriculum in Britannia and the course to be followed in the sea training ship, was submitted in the late autumn of 1869.

Although it was not strictly within their remit the Committee commenced with some general observations concerning the entrance examination, outlined in the regulations published the previous August. Generally they were supportive but in order 'to prevent superficial and discursive study and to encourage concentration of the mental efforts',²² it was proposed to limit the number of subjects in which candidates were tested. The preliminary examination was to remain but in the second paper the candidate would now be required to choose three topics from a list of seven. While subjects included History, Geography, Drawing, French and Modern Languages, all of which carried 100 marks each, they were heavily outweighed by Elementary Mathematics (300) and

Latin (200). The objective of this loading, noted the Committee was to bring the entrance examination 'as much as possible in accord with the teaching in public schools and of other good schools preparatory to them'.²³

Discussing the course of study to be followed in the ship, the Committee commenced with existing arrangements for religious instruction. This they proposed to increase from Sunday only teaching to a pattern that would allow half of all Cadets to follow religious instruction every day. This was to take the form of Scripture study although 'the systematic study and explanation of the Apostles Creed, the Lords Prayer and the Ten Commandments' was also recommended. Awards were to be made for 'careful study and thorough knowledge' and it was observed that 'such prizes are found to be of considerable use in public schools'.²⁴

They then reviewed the place of Seamanship in the syllabus. It has been shown that, despite modern assessments that this subject dominated the Britannia syllabus, it never accounted for more than one third of the total marks required to pass out. The Committee's view was that this should be further reduced and that in future all Seamanship should be 'limited to such manual operations and such information only as may be readily acquired on board without having recourse to printed manuals'.²⁵ Assessment was to be based on purely practical skill and to be examined orally. In future the subject was to occupy only four out of a total 28 hours instructional time per week. While it was still recognised as important, with the Committee noting that

any Cadet who failed to obtain at least half marks in the subject be discharged from the Service,²⁶ they saw its value largely as an antidote to vigorous academic study, observing that it formed 'a valuable addition to the studies not only in a professional point of view, but as affording that wholesome relief from purely mental work'.²⁷

The Woolley Report reaffirmed the trend throughout the 1860s towards a syllabus that was essentially academic in nature, with a very heavy bias towards mathematics. Their recommended distribution and weighting of subjects was

1. Mathematics (including, in the second year, navigation etc)	10 hours per week
2. French	4 hours per week
3. English	3 hours per week
4. Geography	2 hours per week
5. History	2 hours per week
6. Drawing	3 hours per week ²⁸

While the scheme of study for ancillary work was left to the instructors concerned, the Mathematics course, which included Arithmetic, Algebra, Euclid, Plane and Spherical Trigonometry and Navigation was very closely detailed. In addition to the prescribed course, a series of lectures in elementary chemistry and a classificatory science 'such as botany, a branch of zoology or entomology' was recommended and it was noted that for this purpose 'a very fitting lecture theatre might be extemporised in the gymnasium'.²⁹

The final section of the Report dealt briefly with the twelve months to be spent in the sea training ship after leaving Britannia, which was envisaged principally

as a period of consolidation and practical application of lessons learnt at Dartmouth. No new mathematics was to be taught but the Committee urged that 'the practice and theory of navigation and nautical astronomy should be extended, so as to embrace all the problems required by the navigator'.³⁰ The sea going training ship was to carry a commissioned engineer specifically to teach the theory, construction and management of the marine steam engine, and also a French instructor, 'an important part of whose duties should be the encouragement of French conversation'.³¹ With a recognition of the traditional problems of undertaking efficient study in a sea going ship, the Committee stressed that all young officers work should be placed before examiners, and a journal should be kept, which would also be marked.

These recommendations were accepted by the Admiralty and subsequently published as Circular 3c of 6 January 1870³² which formed the basis of entrance to, and instruction on board, HMS Britannia and the sea going training ship until 1875. Thus within 12 months of Childers' first directive as political head of the Service, not only had a comprehensive examination of higher education been initiated, but the regulations for entry and training of Cadets had been fundamentally revised, via a system of limited competition, lower age entry and a longer course.

The most radical of these changes was the introduction of limited competition. In retrospect the idea that a Navy attempting to grapple with the machine age could allow its future generation of officers to be

chosen by a system of patronage, unfettered by Admiralty control, appears absurd. Yet it is equally clear that many officers, while having difficulty articulating a defence, saw the patronage system as entirely natural, for it had become not simply a perk or unofficial duty, but also a means by which the very membership of naval society was defined. Statham's view of the new system was the authentic voice of prejudice.

It is difficult to refrain from dwelling at some length on the anomaly of this method of obtaining suitable officers... Suffice to say it has always been condemned by a number of officers whose opinion should carry weight as men who have devoted their lives to the study of the efficiency of the Service and how best to ensure it; and if their opponents seek to convince them by pointing to results, it is certainly within their right to maintain that these might have been better without limited competition³³.

The obfuscation and lack of substance here is readily apparent, but equally there is the sense that while the original system may have been odd or eccentric, it nevertheless represented a continuing tradition and thus a part of the warp and weft of the social fabric of the Service.

This, as Childers demonstrated frequently during his brief term of office, was a consideration that had to be subjugated to method and efficiency in naval affairs. Yet the concept of limited competition, demonstrably a fairer and more meritocratic device, continued to irritate a nerve in the Navy of the 1870s. In March 1871 the Royal United Services Institution were told by Captain J G Goodenough that the new regulations would

produce boys 'sharper and better taught as midshipmen' but 'inferior Lieutenants, Commanders and Captains',³⁴. Three months later Rear Admiral A P Ryder, a noted campaigner for improvements in Service education, urged the same forum to support the establishment of naval streams in public schools, where the 'moral and mental discipline which a boy is brought ... answers the purpose of bringing to the surface exactly the description of raw material we want'.³⁵ Only in this manner argued Ryder could the Service hope to avoid 'indiscriminate admission by competition among boys of only 13 years old chosen from all sections of the community... a step which would be most mischievous'.³⁶

Yet it is hard to see in Circular 3c the justification for such concerns. Nowhere was it suggested that the privilege of nomination should be withdrawn from senior officers, or that boys from all sections of the community should be allowed to compete. Indeed, far from encouraging indiscriminate admission, it may be argued that the revisions of the Woolley Committee represented a consolidation rather than a dismantling of the class barrier. One of their stated objectives, for example, was to align the entrance examination as far as possible with subjects taught in public schools and the reintroduction of Latin, which had been dropped as a qualification in 1865,³⁷ clearly sought to achieve this. The degree to which it constituted a pure selection device may be shown by noting that while Latin was weighted second only to mathematics and carried double the marks of any other subject in the entrance test,

it formed no part of the actual Britannia syllabus.

In fact the general thrust of the Woolley Committee was not only to align the naval entrance examination with public school practice, but also to make the Britannia syllabus increasingly akin to these establishments. There were clearly limits to the extent of this process, for the vocational demands on the young officer would always imply for example a strong mathematical bias to his education. Similarly, once proficiency in Latin had been demonstrated in the entrance examination, there was no further recourse to serious classical education. Nevertheless, by lowering the entry age and extending the course to 24 months, the Admiralty itself had implied an increased emphasis on academic study and this was consolidated by the Committee. The increased emphasis on systematic religious instruction and, perhaps most of all, the relegation of seamanship teaching to the exercise of practical evolutions, confirmed a trend towards the concept of Britannia as an educational establishment afloat, rather than a commissioned warship which undertook training.

The Woolley recommendations and the resultant Circular 3c became the basis for the Britannia curriculum from 15 January 1870. While the responsibility for examinations, prizes and seniority awarded lay with the Director of Education, all other aspects of training and education continued to be the business of the ship's commanding officer. This was a standard appointment usually held for about three years, and one that in the past had been filled by an officer with current command experience in a sea-going ship. In August 1871 however, it was announced that the new appointee would be Captain the Hon F A C Foley who, despite

a long and active career, had spent the previous four years in charge of the harbour gunnery training ship at Devonport. This break with tradition failed to impress the Naval Chronicle which felt that the current Captain of the sea training ship would be a better nominee and suggested that 'some explanation is surely due to the Service',³⁸ for Foley's appointment.

Whatever Foley's qualifications and aptitude for the post he did not appear to have any particular interest in ensuring that the new curriculum was rigorously enforced. While the recommendations regarding seamanship were certainly applied, and mathematics and navigation courses were diligently pursued, the three years after 1871 saw virtually all other subjects taught in some reduced form. The principal casualty was English grammar for which, in the absence of any classics teaching, an extensive course had been proposed. This never came to fruition, with Woolley noting in 1874 that 'When I attempted to carry out that system... the objections were so great that we confined activities to the simpler grammar which is in use in national schools'.³⁹ History and geography followed a similar fate and it was noted that 'In religious knowledge the departure from the course laid down was very considerable'.⁴⁰

While the Woolley Committee had readily acknowledged that the 1870 recommendations were provisional and would be 'liable to reduction if found on trial too extensive',⁴¹ it is equally clear that Foley and his naval staff were largely unsympathetic towards the new system. The demise of seamanship and increased emphasis on academic work appears to have undermined the professional reward of serving on the

naval staff. Foley's First Lieutenant noted that, apart from alternate days duties and attending to minor disciplinary offences, 'there did not seem much for the three lieutenants to do'.⁴² This view was supported by Tupper, a Cadet in 1873, whose principal memory of his training was that the officers took 'little or no interest in the cadets and could not have been selected for their qualifications in that respect'.⁴³ Foley apparently petitioned the Admiralty unsuccessfully on a number of occasions between 1871 and 1874 to have seamanship reinstated⁴⁴ and his evidence to the Rice Committee, in which he proposed dispensing with the teaching of English grammar and History, revealed him as an opponent of the wider academic syllabus.

Unfortunately the arrival of a Captain unsympathetic to the new curriculum coincided with a decline in the influence of the Admiralty's Director of Education. The supervision and moderation of the Britannia examinations had been part of Woolley's task since 1868 although this only represented a fraction of a steadily increasing workload. By 1871, apart from his duties in connection with officer education, he was responsible for:

- (a) the examination of all engineers, shipwright apprentices and naval architects in Royal dockyards at home and abroad.
- (b) the examination and inspection of boys in seamans training ships (5) and in the Greenwich Hospital Schools
- (c) the examination of Pupil Teachers and supervision of their progress during their course at the Training College
- (d) inspection and examination of all Infant, Industrial and Adult Schools within the Marine division
- (e) Supervision of Recreation Rooms and Libraries

(f) Correspondence and Reports concerning:

- (i) Grants to Schools containing children of parents employed in the Navy
- (ii) Grants to building schools in naval districts
- (iii) Gratuities to Schoolmasters
- (iv) Prizes in Dockyard Schools ⁴⁵

Additionally he was retained by the Controller of the Navy to advise on various scientific questions including the oversight of Admiralty laboratories at Torquay and as a member of the 1870 Committee on Ship Design.

These tasks, which were undertaken solely by Woolley and his deputy Revd J A Harboard, apparently without clerical assistance, must have imposed a considerable burden for most of the examinations cited were held half yearly and the ships and establishments were very widely dispersed. In the winter of 1872 Woolley's health broke down and after a prolonged illness he was forced to write to the Earl of Camperdown, a member of the Admiralty Board, offering to return to the Admiralty, but warning that

I am satisfied that I shall be unable to do so unless the duties are considerably modified - as my health would certainly again break down under such pressure as I was under last winter ⁴⁶

He noted that 'the office I now hold has grown vastly in importance' and he suggested its scope might be further increased by employing additional staff and placing it 'in every respect on an equality with other Principal Officers eg. Medical Director General'. ⁴⁷

It was clear that some form of modification to the Navy's educational administration would have to take place, for the whole spectrum of inspection and examination had widened in the eight years since Woolley's appointment. By

June 1872, while it was obvious that the new naval college at Greenwich would be much larger than originally envisaged and would be led by an Admiral, it was still unclear what its administrative structure would be and how it would stand in relation to the responsibilities of the Director of Education. This matter might be resolved, suggested Woolley, by his resignation and the establishment of a new post.

I am however ready to go if my doing so will be advantageous to the service by enabling Mr Goschen to consolidate in the hands of a Naval Officer all the different departments more effectively than those of a Civilian.⁴⁸

Either way, observed Woolley, some form of reorganisation would be necessary and he concluded by placing himself 'in the hands of Mr Goschen and your Lordship and shall be happy to go or remain as may be wished'.⁴⁹

Despite the provision of some temporary clerical support and the appointment of a second assistant with responsibility for the Marine division, Admiralty records show that Woolley's service ceased in December 1873.⁵⁰ Initially the reason appears to have been recurrent ill health but by the time his pension arrangements were discussed the following month, the papers indicate that the Admiralty had subsequently decided to abolish the post. On the basis of this, the Board urged the Treasury to pay Woolley an allowance additional to his pension, in recognition of

the great energy and mental attainments which led to his undertaking, much to the advantage of the country, many extra and special services, not coming strictly within the Office which he held.⁵¹

The decision to dispense with the post of Admiralty Director of Education was formally announced by a circular of 21 March 1874.⁵² In future educational responsibilities were to be divided with 'the officers of the Royal Naval College at Greenwich' responsible for the general supervision of the dockyard schools and officers' education, and all functions relating to the lower deck, to be the responsibility of a new post holder, the Inspector of Naval Schools.

This was in some ways a logical progression, for it has been shown that by 1871 the inspectoral and examining duties connected with sailors' and boys' training ships and establishments, had multiplied and were worthy of a dedicated post holder. Similarly the Royal Naval College at Greenwich was considerably larger and more prestigious than its predecessor and its first Admiral President, Astley Cooper-Key, was keen that the College should assume a wider bureaucratic responsibility for the conduct of officer education. As Officer candidates were now examined at Greenwich prior to Britannia and returned there after initial sea service on Sub Lieutenants courses, it appeared logical that educational policy should be determined at the College.

Yet while the logic of transferring the general supervision of Cadets' education to the Royal Naval College was sound enough, little attention appears to have been paid to the practicalities of the process. Despite the fact that Woolley's service ceased in December 1873, it was not until 21 March the following year that the new supervisory authority was announced, and the generalised description of this as simply 'the officers of Royal Naval College' seemed

disappointingly vague. Certainly the Circular seemed to prompt little action from the College, for as late as 22 May it was necessary for the Board to acquaint the Admiral President that

my Lords have decided that the examination of Cadets in HMS Britannia shall in future be conducted by the staff of the College and direct him to place himself in communication with the Captain of Britannia and to submit proposals for carrying out the same.⁵³

It would seem that for at least five months no action had been taken under the new arrangements.⁵⁴

The Rice Committee

It is apparent from contemporary accounts of life in the Britannia and from the evidence offered to the Rice Committee, that although the new syllabus outlined in the regulations of 1870 gained Admiralty approval, it was only partially implemented up to 1874. While instruction remained essentially academic in nature with prowess in mathematics the key to success, the intention of the Woolley Committee that it should be broadened to incorporate substantial portions of English, History, Geography and French remained, partially at least, unfulfilled. This situation was exacerbated after 1871 by a decline in the influence, due to overwork and ill health, of the Director of Education. His resignation in late 1873, while precipitating an arguably more logical system of supervision, does not appear to have been grasped by either the Admiralty or the new Greenwich authorities with any degree of resolve, and a subsequent loss of momentum was evident.

While Foley may have been less than enthusiastic about the new educational curriculum, he nevertheless approached his task with energy and enthusiasm largely channelled into a programme to improve the habitability of the Britannia. Despite the fact that she had only been in commission as a training ship since 1869 she was an obsolete design and it was more than 30 years since she had been laid down. Although larger and more commodious than her predecessor, the fifth Britannia showed the same problems of poor ventilation, dampness and rot. This was particularly evident in the instructional spaces above the orlop deck and in the sleeping accommodation. Lieutenant A W Warry joining her on the staff in 1870 noted that 'the air on the sleeping decks when the boys were turned in was, I thought, far from being as pure as was needful'.⁵⁵ William Dalby, Staff Surgeon in the ship in the same year, confirmed that the lower decks suffered from poor air and that despite the persistent flushing of the bilges with a force pump, noted that this area was pervaded by an offensive smell.⁵⁶

On his arrival in August 1871, Captain Foley, who had spent the previous three years running a harbour training ship, considered the Britannia to be in an unsatisfactory state, and set in motion a series of modifications. He noted that the major problem with the ship was that the keel had been decked over the ballast and thus it was 'impossible to clean out alongside the keel and there was foul air and a very bilgy smell'.⁵⁷ The holds of the ship were in a particularly poor state with some timbers so rotten they had to be encased in concrete.⁵⁸ Under the supervision of Staff Commander William Browne vessels containing slaked lime

were placed in the bilges and 14 carpenters were employed for four months, to lay the keel open from stem to stern and thus allow the area beneath the sleeping accommodation to be satisfactorily cleaned.

One reason for their diligence may be derived from examining the Health of the Navy reports for 1870 and 1871 which revealed persistent outbreaks of illness among the Cadets. It has been shown that throughout the 1860s the previous Britannia had returned overlong sick lists and that this had been a matter of persistent concern to the Admiralty.⁵⁹ It is clear that the commissioning of the new ship did little to redress the problem and within twelve months of her arrival 13 cases of small pox and a major outbreak of scarlet fever had swept the ship. The latter epidemic, which required the removal of 61 Cadets to shoreside sick quarters, completely overwhelmed the medical facilities of both the ship and the town. The following year a further ten cases were reported, with the result that during the Christmas vacation, the Medical Director General directed the ship to be disinfected 'by means of sulphurous acid gas' and that 'all the various compartments of the ship, studies, messrooms, decks, latrines, holds etc were to be cleaned, painted and limewashed'.⁶⁰

While the Health of the Navy reports readily acknowledged that scarlet fever 'was then prevailing more or less in every part of England' and that it was almost certainly imported from ashore, it is possible to observe a growing disenchantment on the part of the Admiralty medical department with the conditions in Britannia and Hindostan. While the causes of illness could seldom be accurately

identified there was little doubt, suggested the 1870 report, that the rapid spread of disease was 'easily accounted for by the free inter-mingling and close association that unavoidably take place where so many young people are collected together in a ship'.⁶¹ The following year, after an outbreak of fever, the report went further suggesting that 'a nadus of the contagion, notwithstanding the various disinfecting measures adopted had still remained lurking in the ships themselves'.⁶²

In early 1871 the First Lord, Hugh Childers, expressed a concern that the habitability and conditions of the training ship were so poor that the physical development of the Cadets was becoming impaired and that they were suffering from 'stunted growth'.⁶³ It is unclear upon what evidence this was based, but the Medical Director General Sir Alexander Armstrong, was charged with investigating the matter and submitted a minute to the Admiralty Board the following year, which concluded that 'boys can only be educated in a stationary training ship at a considerable sacrifice of and interference with, their due physical development'.⁶⁴ The basis for this view appears tenuous, for Armstrong later admitted to the Rice Committee that he had visited Britannia only three times in the previous five years, that no visit had lasted more than an hour, and that on none of these occasions were any Cadets on board.⁶⁵ By the time of the submission Childers had retired and his successor George Goschen took no action on the matter. However with the return of the Conservatives in March 1874, Armstrong re-submitted a report in which he expressed 'a strong opinion against the existing nature and course of

education on board the Britannia as being physically detrimental to growth'.⁶⁶

This arrived on the desk of the new First Lord of the Admiralty, George Ward Hunt. He had no particular expertise or knowledge of naval matters, having served in the Derby administration from 1866-68 as financial secretary to the Treasury and earned a reputation for aptitude as Chancellor of the Exchequer under Disraeli until December 1869. On taking office at the Admiralty in March 1874, however, the new First Lord sought to acquaint himself with the state of the Service by instituting what the Reader to the Board described as 'an immediate and most impartial enquiry into the existing state of the several naval departments'.⁶⁷ In the midst of this exercise in May 1874, the Medical Director General's adverse comments were submitted and were thus included in the review.

The following month a memorandum from the Secretary to the Board announced that Cadets' training would be scrutinised and in particular that:

A question has arisen as to whether the conditions under which naval cadets are trained on board HMS Britannia are favourable to their health and physical development. Their Lordships are desirous that this matter should be investigated by a Committee.

The attention of the Committee should be specially directed to the following points:

- I. (a) The effect of confinement on board a stationary ship.
- (b) Ventilation.
- (c) Sleeping arrangements.
- (d) Diet.

II. (a) The course of study as regards the subjects, the number of hours, and the routine.

(b) The nature of the examinations, including that on entry.

Should the Committee be of opinion that the brains of the cadets are overtaxed, they should consider whether the course of study might be made less severe, and the standard of examination lowered, without detriment to their qualifications as naval officers.⁶⁸

The membership of the Committee appeared to be deliberately designed to represent a blend of talents and background relevant to Cadets' health, education and training. The professional dimension was represented by senior naval officers, Captain W C Carpenter, late of the sea training ship Ariadne and Captain William Graham incoming commanding officer of HMS Britannia. Medical expertise was provided by George Busk FRS, FRCS and Naval Surgeon James Vaughan and the team was completed by academics Revd H A Morgan and Revd Osborne Gordon⁶⁹ from Jesus College, Cambridge and Christ Church, Oxford respectively. The Committee was under the leadership of Rear Admiral Edward B Rice.

The group commenced hearing evidence on 29th June 1874 at Dartmouth and over the next three weeks some 38 witnesses were called before the Committee. These constituted a remarkably large and diverse group and it is significant to note that in contrast to the Shadwell evidence, which was predominantly drawn from senior officers, the largest single representation was from Naval Cadets - ten of whom testified before the Rice Committee. Medical expertise was provided by the Medical Director General and four Staff Surgeons with previous experience in either the Britannia or her sick

quarters ashore. Other witnesses included the Headmaster of the City of London School and mathematics staff from Christ's Hospital and Harrow. For the first time in a naval educational enquiry the views of ancillary staff, in this case the ship's carpenter, cricket coach and gym instructor, were sought.

In excess of 3000 paragraphs of evidence were taken over a two and a half week period and distilled into a relatively compact report issued on 6th October 1874. The Committee's findings were presented in three principal sections dealing with health and environmental conditions, academic matters with particular reference to the curriculum and routine, and finally a review of the existing arrangements for entering boys into the Service. Additional memoranda by Morgan and Gordon on aspects of the academic course were included in the main report, and the appendices included extensive tables of Cadets' height and weight both at various stages of their career, and in comparison to boys at other schools.

In accordance with the remit, the early sections of the report dealt specifically with questions of Cadets' health and physical development. Evidence here was derived from both verbal testimony and personal inspection. In the former category while most, regardless of their status, offered a view on the Cadets well-being, the first six witnesses were questioned specifically and solely on the matter and thus constituted a sort of 'expert cadre'. They included the four Staff Surgeons, the Sergeant of Marines responsible for gymnastics and physical training and the professional cricket coach to HMS Britannia. Also

called as an expert witness later in the enquiry was the Medical Director General to the Admiralty.

In addition to hearing this testimony the Committee, which included two medical practitioners, travelled to Dartmouth where they personally inspected Cadets

at muster, at meals, in their classrooms, in their hammocks at night, in the cricket field, in the gymnasium, in the boats, when bathing, and in every way which appeared likely to thoroughly test their physical condition.⁷⁰

The ship was rigorously examined, including an inspection of Cadets' sleeping quarters carried out between the hours of 11pm and 1am. On this basis the statistical returns were derived and for the purposes of control and comparison the Committee visited other schools, including Eton College, where the physical condition of junior boys was observed and noted.

As a result of both verbal testimony and their own investigation the Committee gave a complete endorsement to the environmental standards in the ship. While previous habitability problems were acknowledged and the improving work of Foley and his team was applauded, the Committee were of the view that by 1874 there was 'nothing in the fact of residence on board Britannia which is unfavourable to the health and physical development of the cadets'.⁷¹ In this respect the Committee noted a considerable improvement in the sickness returns in recent years. Ventilation, diet and the sleeping arrangements were all judged satisfactory and, with the exception of lengthening the lunch break, no recommendations for improving the physical surroundings or professional routine of HMS Britannia were made.

Given that the primary impetus behind the formation of the Committee was a long standing concern for the health of Cadets and the possible detrimental effects of confinement in a stationary training ship, the relevant section of the Report is remarkably brief. Despite the fact that in excess of 650 paragraphs of evidence was offered by expert witnesses and numerous pertinent observations were made by others, this was summarised in just 17 paragraphs of findings - many of them quite short.

While there was nothing to suggest a deliberate misrepresentation, it is impossible to avoid the impression that the Committee was overly keen to award the ship a clean bill of health. Thus they were happy to cite that the bulk of medical evidence was prepared to endorse the suitability of the Britannia for new entry training. This was undeniable, for important witnesses with first hand knowledge of the ship confirmed the case. Staff Surgeon William Connolly for example noted that the ship was 'nearly as perfect as could be expected',⁷² and that no shortcoming in Cadets' health could be attributed to living aboard.⁷³ Staff Surgeon William Dalby confirmed that the Britannia had been 'wonderfully improved' and that 'as far as a ship can be she is as complete as anything that can exist'.⁷⁴

What was less apparent however was that some witnesses, notably the Medical Director General, were unwilling to support the Britannia's suitability at all, and that even the positive affirmations cited in support of the Committee's conclusion, were invariably heavily qualified. For example, even when applauding the improvements, the balance of medical opinion

consistently argued that a shore based college would be a healthier and more desirable alternative. Indeed no expert witness was prepared to testify to the contrary. Thus despite Connolly's supportive views, he also noted that 'in a medical point of view I think a shore establishment would be favourable',⁷⁵ and Dalby was unequivocal that not only would Cadets be healthier ashore, but that an establishment could probably operate at one third the expense of a ship.⁷⁶ While the Committee were eventually led to this conclusion and subsequently recommended the decommissioning of the ship, they seemed particularly keen to ensure that the decision was not related to problems of ships' hygiene.

Conversely, the limited evidence of lassitude in trainees observed by the Committee, namely that 'a portion of cadets had a somewhat pale and jaded appearance',⁷⁷ they attributed to the course of study, the number of hours and the routine of the working day. It was in this area, concluded the members, that 'the brains of cadets were overtaxed... by the excessive number of subjects and the system of examining',⁷⁸ and they claimed 'there is some evidence of this in the overworked appearance of a portion of the Cadets'.⁷⁹ It is instructive to note that no empirical connection for this was established, or any attempt made to demonstrate why academic study, rather than the physical environment, should be responsible. It seemed to be a general assumption that if the condition of the ship had been established as healthy and yet Cadets continued to appear languid, then academic study must be to blame.

Whether this was so or not, the assertion that there

was a link between the poor 'tone' of some Cadets and the nature of the curriculum, did have the effect of concentrating the efforts of the Rice investigation firmly in the educational domain. The sections of the Report dealing with entry procedure and the Britannia syllabus thus constituted the bulk of their findings, and were more than twice the length of the preceding consideration of habitability. It is also significant that while the remit to the Committee was primarily a medical and professional one and the preponderance of naval officers and doctors in its membership reflected this, the majority of its deliberations were focused towards educational matters.

In their instructions the Committee had been invited to consider the 'conditions of entry' and to make any appropriate recommendations for change. The nomination and entrance procedure had been a continuing matter of debate, and some irritation, in the Service since the adoption of a more competitive element in the initial examination by the Childers administration in 1870. This was a relatively modest measure which continued to protect the rights of senior officers to nominate candidates, while introducing an element of merit and control to admission. It was, however, widely resented, and the Rice Committee, heavily dominated by naval staff, moved swiftly and without preamble 'to express entire disapproval of the present system of entry by competition'.⁸⁰

The grounds for this objection, argued the Committee, were specifically educational. The degree of 'cramming' required to prepare for a competitive examination involved many months of arduous study which frequently resulted in

lack of both sufficient sleep and the exercise necessary to maintain boys in vigorous health. Neither should the young aspirant be introduced to mental exertion in such a manner, for the likelihood was that 'having thus fallen into superficial habits of study it will be difficult for him afterwards to escape from them'.⁸¹ These arguments, suggested the Committee, had been advanced emphatically by various witnesses, including an examiner for the University of London, and they were therefore unanimous in the view

that the system in force prior to 1869 be reverted to, and that boys be simply nominated to cadetship, without competition, but subject to passing a well-considered test examination in reading, writing, arithmetic, and Latin.⁸²

While the Committee might have believed that limited competition should be abandoned on educational grounds, a detailed examination of the evidence suggests this was not the advice they received. It was true that objections were voiced by both Doctor Leonard Schmitz of the International School at Isleworth and by the Chief Naval Instructor of the Britannia, but with these exceptions all witnesses called on account of some educational expertise were happy to endorse the competitive system. Thus T J Potter, Head Mathematical Master at Christ's Hospital, while noting that competition should not be carried to excess did not find the system was injurious to boys,⁸³ a view supported by the Headmaster of the City of London School.⁸⁴ Joseph Woolley, former Admiralty Director of Education, believed that competitive examination had the advantage of giving the Service the best pick of the boys⁸⁵ and Revd John Harboard, the Admiralty's current Inspector of Schools, was 'decidedly of opinion that

limited competition is very advantageous' and that the Service gained, by that means, 'the most intellectual of the candidates and secure socially the best boys for the service'.⁸⁶

In fact evidence against competitive entry came not primarily from educationalists, but from senior naval officers who objected, not on the grounds that the system was harmful to candidates, but that it implied a wider and less defined catchment of young recruits. Most naval witnesses felt the trend should be moving in the opposite direction. Captain the Lord Gilford, for example, suggested that the choice of candidate should simply be a matter of First Lord's patronage and that any examination should be limited 'to a test that any boy from a public school could pass'.⁸⁷ Vice Admiral A P Ryder advocated an even more restricted system where nominations should be given, not to individuals, but to 'some seven or eight of the great schools of England',⁸⁸ who would be tasked to provide each year '70 of the best boys that England can produce'.⁸⁹ He was unambiguous about the Navy's requirement

We want the sons of gentlemen. We want the sons of men, I say who are not pauper gentlemen. We want, and it is better for us to have, the sons of men of some little independence.⁹⁰

Captain Thomas Brandreth echoed these sentiments and proposed limiting nominations to the products of 'Eton, Harrow, Shrewsbury and so forth'. This, he felt, would go some way to satisfying the great want of the Britannia which was 'that there is no public school tone in it'.⁹¹

The Rice Committee were unable fully to reflect these views, not on the grounds that they were divisive, but because of the specific requirements of a young officer's education. The necessity, for example, of commencing active sea service at the earliest possible age, was strongly reiterated, and this in turn meant that a young officer's formal education would initially be shorter than that of his public school counterpart. Similarly, despite 'the advantages that such schools might possess as regards tone and formation of character',⁹² the typical syllabus was seldom relevant to the future Cadet whose principal vocational requirement was a solid grounding in mathematics, rather than Latin or Greek. For these reasons it was essential, argued the Committee, that the education process should continue to be devised and run by the Service.

Nevertheless, they were sympathetic to the arguments for greater exclusivity in recruitment and thus, in addition to scrapping limited competition and returning to the system of absolute nomination, they suggested that the Navy should operate its own additional sifting mechanism.

As it is apparent that under the present system unfit boys do occasionally find their way into the Service, we think that a safeguard might be found in the institution of a Board by whom all candidates should be approved prior to being permitted to undergo the educational examination. The Board might be composed of executive and medical officers combined, and their examination should take the place of the present medical examination. They should have power to reject any candidate who might appear to them unlikely to make an efficient officer. Defects not discoverable by an educational test might frequently be patent to such a committee, and the Service would be thus spared the introduction of youths unsuitable for it.⁹³

This recommendation clearly represented a reversal of the general trend towards objective merit in the selection procedure introduced by Childers, which despite the pressures it implied via 'cramming', at least ensured success based on diligence and application. Now, as far as the Rice Committee were concerned, it was possible for a boy as young as 11 years to be rejected, even before the examination, on the indefinable grounds that he would be 'unlikely to make an efficient officer'.

Having given the Britannia a clean bill of health and recommended a return to a more subjective method of choosing potential officers, the Committee examined the future curriculum. Their basic contention was that the syllabus established by the Woolley Committee four years previously contained too many subjects to allow a competence in any. They also argued, rather obscurely, that knowledge acquired in History, Scripture History, Geography, Grammar and Literature 'is of the kind which taxes memory rather than reason' and was therefore 'apt to be quickly forgotten'. Conversely, it was felt that the Mathematics course, although heavily outweighing the arts element was not thorough enough and that its profile in a naval officer's education, on account of the accurate reasoning and scientific attainment it imparted, should be raised. To achieve this, suggested the Report, the content of the course could be reduced, the length of study extended, or a combination of both.

Despite their previous endorsement of the living conditions and hygiene standards in the Britannia, the members were unwilling to extend the period of instruction

on board. Quite what the disadvantages of further time in the training ship might have been remained unspecified, but the Committee were adamant that 'we have no alternative, if the Britannia be maintained, but to propose a large reduction in the number of subjects taught'.⁹⁴ Hence they recommended that examinations in Grammar, Literature, History, Scripture History, Physical Geography, and Physics be discontinued and increased emphasis placed on mathematics - a subject which was 'daily becoming more important to the naval officer',⁹⁵ at a time when 'the difference in the value of the observations made by cultivated and uncultivated observers cannot be too highly estimated.'⁹⁶

Perhaps the most surprising recommendation, in the midst of the reduction of so many basic subjects, was that the study of Latin should be reintroduced. The logic for this appeared particularly tortuous, with the Committee's contention that History, Geography and Grammar were apt to be quickly forgotten but that a boy studying Latin 'having once acquired this knowledge he would never forget it, and it would be a source of pleasure to him in after life'.⁹⁷ Similarly, while the advantage of studying a classical language as an aid to improving English composition was heavily stressed, the actual teaching and examination of English Grammar and Literature was to be reduced, despite the fact that the Committee had been told by witnesses that young officers were deficient in this area.

The Rice proposals, which it will be noted constituted to a large extent the unravelling of the work of the 1870 Woolley Committee, continued with revised

regulations for the place of seamanship in the syllabus. Since 1870 this subject had been reduced to a purely practical evolution requiring no classroom study and carrying no weight in the overall class of pass obtained. While Rice were happy to satisfy the first two conditions they wished to return seamanship to 'an important part in determining the class of certificate to be granted to the cadet',⁹⁸ and duly recommended that the assessment which should be 'purely practical and entirely oral' must now count accordingly.

The whole philosophy underlying the reduction of subjects within the existing training period was designed, argued Rice, to send the Cadet to sea thoroughly grounded in mathematics and with his general education as advanced as possible. This was not only desirable, but also essential, given the established difficulty of attempting to pursue the education process later in an operational warship. Despite their glowing endorsement of standards in the Britannia and the fact that their recommendations were, thus far, based on its retention, they expressed doubts as to whether even these proposals would produce the desired effect, while calculated and based on a two year training cycle.

The proposed solution to this problem appeared in paragraph 38, where the Committee considered

whether it might not be desirable to substitute for the Britannia a college on shore, where a moderate extension of the course of training would not in our opinion be attended by the same disadvantages as a lengthened residence on board a stationary training ship.⁹⁹

If such a plan were adopted the reduced syllabus would

still be pursued but based this time on a three year course on shore, broken by two extended summer cruises in sea-going training ships.

The advocacy of a shore side college was conducted with considerable deftness and deference towards the Britannia, and the Committee were at pains to avoid any specific criticism of the ship. Hence, her excellence as a place of residence was stressed and the discipline pertaining aboard, which produced 'force of character and enthusiasm for the service',¹⁰⁰ was emphasised. The fact was, however, that regardless of her own particular standards, by 1874 the Britannia bore 'but slight resemblance to a sea going man o' war',¹⁰¹ and the nature of life aboard was so different that it was 'in no way a preparation for the discomforts of a sea life'.¹⁰²

Conversely, there was much to be said for a naval college which would be established at the outset with a distinct atmosphere and discipline of its own, derived not from a warship but approximating as far as possible to the conditions of the best public schools. While it would have a naval officer as its Lieutenant Governor

the utmost pains should be taken to obtain a headmaster and assistant masters of a calibre not inferior to that which would make them acceptable for like posts at the best public schools.¹⁰³

The college should have immediate access to the water and be as close as possible to a sheltered anchorage where a small training vessel could be based. While the special requirements of a naval education would need to be maintained, it should be possible, argued the Committee,

to expand the study of Latin, Geography, and History so that any boy rejected as unfit for the Service during his course should be capable of resuming his education in an established public school.

Although Sullivan has portrayed the Rice recommendation to establish such a college as 'a radical proposal',¹⁰⁴ it will be noted that their concept of shoreside training differed little from the recommendations of the 1863 Select Committee on Promotion and Retirement. Similarly, it has been shown that in the same year a First Lord's circular drew a favourable response to the feasibility of shore side training and that a survey of potential sites had been undertaken. Discussion had been evident in the Service press for some years and the subject had recently been thoroughly aired in debate concerning the new college at Greenwich. In essence there was little original thinking in either the detail or the concept of shore training.

In fact, far from taking a radical stance on the suitability of the Britannia, the Report seemed infused with a deference towards the ship which cast doubt on whether the Committee really expected their recommendation for a longer course on shore, to be accepted. Their combination for example of a vigorous endorsement of standards of health and habitability and an absolute opposition, for reasons never fully explained, to any extension of the course, seemed to suggest they expected the status quo to be maintained. Similarly, although they argued that the College was their preferred option, the

bulk of the discussion on the syllabus was concerned not with a fuller course conducted over three years, but on a two year session with a reduced number of subjects - in effect the existing arrangement in the ship. It is important to note that however desirable the Rice Committee felt a college might be, arguments in its favour were careful to avoid a derogation of the Britannia.

The Rice Report was submitted on 6th October 1874 and its recommendations incorporated into new regulations for entry published the following February.¹⁰⁵ The abolition of limited competition was confirmed and a return to the old system of absolute nomination authorised. As the overall manpower requirement remained unchanged - the Navy still required about 80 young officers per year, a reversion to the old system effectively halved the number of candidates. Nevertheless the fact that this smaller number were almost assured of a place appeared to satisfy the demands of senior officers, and Statham's claim that the decision had the full support of the Service, appeared to be borne out by reaction in the press.

The new regulations also confirmed the prominence of Arithmetic and Latin in the entrance examination which meant that for the first time in recent years, it was no longer necessary to demonstrate a proficiency in French - an understanding of the outlines of modern geography being deemed an acceptable substitute. Thus in successive entry regulations over a ten year period, French had declined from being an equal scoring alternative to Latin, to a subject carrying half marks, and finally holding only optional status. This demise was all the more remarkable

on account of the vocational relevance of the language, which arguably placed it second only to mathematics in the naval officer's skills.

The New Naval College

While most commentators acknowledge the government's general acceptance of the Rice proposals there is a view that the issue of shore side training constituted an exception. Sullivan notes that 'no immediate action followed upon the Committee's recommendation that a college be established on shore'.¹⁰⁶ Statham says of the issue that 'no notice was taken of it, apparently, at the time',¹⁰⁷ and Bonnett supports this view.¹⁰⁸ The basis for these assertions is unclear for it is evident from a number of sources that the government was no less assiduous in this matter than in others. Thus in the Estimates for the year immediately following the submission of the Rice Report a total of £65,000, of which £8,000 was immediately required, was allocated 'Towards the erection of a College for naval cadets (including purchase of site)'.¹⁰⁹ It is also clear that Ward Hunt's intention was to found the institution at Dartmouth, for on 5th April 1875 he directed the Medical Director General to report on the suitability of a site above the town.¹¹⁰ In June further advice was sought from past commanding officers of the Britannia on the suitability of the location,¹¹¹ and the following month a statement was drawn up demonstrating savings which would eventually accrue from the decommissioning of the ship.¹¹²

In fact, far from allowing the matter to rest, the Broad Arrow was concerned that Ward Hunt was pursuing the matter too energetically. In July 1874 it noted that if the establishment of a naval college was an example of Conservative reform, then the government would do better to 'return to its proper policy and not compromise itself by adopting the restless fancies of fussy agitators'.¹¹³ Although matters were well advanced, the paper reflected gloomily, 'we trust we are not too late to avert a change which may be for the worst'.¹¹⁴

In fact moves to scrap Britannia and replace her with a college were halted briefly the following year, not by the strength of the opposition but conversely by the extent and the variety of the support. Within weeks of the publication of the Rice Report in 1875, letters offering to sell land to the Admiralty for the site of a college started to flood in. The situation soon became more complex with the offer of land at Poole as a gift to the nation, and the political sensitivity sharpened as various members for seaside constituencies felt duty bound, according to the United Services Magazine, 'to trumpet forth the praises of his particular locality'.¹¹⁵ As the clamour grew the First Lord had to warn his staff that they should on no account enter into correspondence with vendors regarding the relative merits of potential sites.¹¹⁶ Clearly sensing difficulty ahead, Ward Hunt abandoned the plan to move directly ashore at Dartmouth and in 1876 appointed a Committee to advise on a suitable location for the new college.

This group was led by Admiral George G Wellesley and consisted of serving officers Captains C T Curme and W E Gordon and two doctors - John Sutherland from the War Office and James Donnet former Inspector General of Hospitals for the Navy. Their remit was simply 'to advise their Lordships as to the most desirable site for a College for Naval Cadets' with due regard to

1. General salubrity
2. Supply of water
3. A close harbour, giving facilities for the accommodation of a small training vessel and for boating and bathing with safety.
4. Easy access to the sea from such harbour.
5. Proper space for recreation ground on shore and suitability of the neighbourhood for walking exercise.
6. Absence of special temptations in the morality in the neighbourhood.
7. General suitability, including means of access by railway.
8. Caeteris paribus reasonable proximity to a great naval port is to be taken into consideration.¹¹⁷

With Naval Paymaster George Grandidier as Secretary, the Committee commenced their work in July 1876.

Most existing comment has suggested that the scope of the Wellesley inquiry was relatively limited. Hughes for example notes that only nine sites were investigated,¹¹⁸ while Statham cites Milford Haven, Hayling Island, Westward Ho, the Isle of Wight, Dartmouth, Southampton Water and Poole,¹¹⁹ with Sullivan repeating the same locations. In fact reference to the original document reveals that the Wellesley survey was a much wider one and that in response to the insertion 'of an advertisement inviting offers of eligible sites accessible

by sea or tidal waters',¹²⁰ they actually examined 28 sites at 12 different locations.

While these inspectorial tasks were relatively straight forward and might have been handled competently within an internal departmental report, it was clear from constituency interest in the question that the final decision would have some political significance, and thus the Wellesley deliberations were presented in the form of a Command Paper in early 1877. The Report revealed that a number of the 28 sites could be dismissed relatively quickly. These included all those adjacent to the dockyards at Portsmouth, Devonport and Milford Haven on the grounds of 'immoral temptations', Hayling Island, Westward Ho and Poole for lack of satisfactory facilities for bathing and boating, and Weymouth, which could only offer Portland Roads as an anchorage for a training vessel. In the Committee's opinion there were only three contenders for the position - Wootton Creek on the Isle of Wight, ground on the shores of Southampton Water between Hamble and Netley and the original choice at Mount Boone, Dartmouth.

The investigation of these sites was conducted with remarkable stringency including examination, via companies of Royal Engineers, of the sub soil down to six feet in each location. Annual rainfall was measured and its incidence noted, as was the quality of the drinking water available at each location. The death rate, cause of death and prevalence of disease in the local population was analysed and the nature of the surrounding countryside for recreational purposes examined. While both sites on

the Solent had much to recommend them, the Committee nevertheless supported the First Lord's original decision that the new college should be built on the hill overlooking the moorings of the Britannia and Hindustan at Dartmouth.¹²¹

Predictably there was a good deal of hostile reaction from the thwarted constituencies with charges from E J Reed, Member for Pembroke, that the Wellesley Report contained serious inconsistencies.¹²² In May 1877 the Member for the Isle of Wight secured the assurance that no final settlement would be reached until the First Lord, who was ill, had returned to the House.¹²³ In July it was announced that the government had accepted that Dartmouth was the best site but that the final decision would remain in abeyance as George Ward Hunt was now seriously ill and living abroad.¹²⁴ The situation became increasingly complex when, in response to this announcement, the Admiralty were informed that in fact the potential site was not for sale and that the owners had no intention of parting with any portion of the estate.¹²⁵ This had the effect of increasing the pressure from other parties and throughout July 1877 the constituency interest was maintained with questions from the members for Southampton, Weymouth and Christchurch, all demanding to know when the matter would be finally resolved.

By late July 1877 the legal aspects concerning the land had become confused with doubts now expressed concerning both its sale and apparently its legal ownership.¹²⁶ What was clear, however, not least from persistent government prevarication, was that the whole

subject of a future naval college at Dartmouth was closely connected with the personal position of George Ward Hunt. Since the Childers reorganisation of 1869 it was of course perfectly possible for the senior political appointee to sponsor individual projects in isolation from his colleagues, and it was clear that A F Egerton, the Admiralty Secretary, was not prepared to advance the matter while his political master was absent. On July 27th the Chancellor of the Exchequer effectively closed discussion with the announcement that no Vote would be made during the present session but that, pending the First Lord's return to health, it might be introduced as a supplementary estimate the following year.¹²⁷

In fact two days later George Ward Hunt died and with his death the issue of a naval college faded into obscurity. The United Services Magazine had predicted that the continuance of the project would 'depend very much on the view that the new First Lord may happen to take of the advisability of the proposed change',¹²⁸ and although a summary prepared for his successor noted that 'the proposed college was a matter that Mr Ward Hunt took a personal interest in',¹²⁹ no action followed. In preparing his spending plans for the following year the new First Lord, W H Smith, noted to his Chief Clerk without further elaboration that,

no provision is made in the Estimates for a vote for the Cadets college, it is not proposed to reopen negotiations for its acquisition this year.¹³⁰

In June 1878 Smith again noted that he was 'not prepared to enter negotiations',¹³¹ on the matter and the issue was allowed to rest, with no further discussion in Admiralty papers until the advent of the Luard Committee examining Cadets training in 1886.¹³² It is also instructive to note that the change of First Lord effectively ended any further parliamentary discussion, and the back bench concerns about the future of naval training expressed in the summer of 1877, were revealed as nothing more than the advancement of various constituency interests.

Thus although the plan for shore side training came to nought it can be shown that, despite previous claims of Admiralty inaction, the matter was carefully and immediately advanced under the Ward Hunt administration. Money for the project was earmarked in the draft estimates and there can be little doubt that, but for the competing claims of other constituencies and the need to appoint a committee of arbitration, that a college would have been established in Dartmouth possibly as early as the autumn of 1875. That it was not was undoubtedly due to the personal preference of the new First Lord who could, with some justification, cite the Rice Committee's conclusion that while a new college was desirable, the Britannia remained perfectly adequate to fulfil the needs of Cadets' training.

Conclusion

Some indication of the nature of life in the ship at this time may be gained by examining the Britannia regulations for 1877. The custom of issuing separate regulations had begun four years earlier with a small locally produced publication printed in the town. By 1877 this amounted to some 110 pages concerning every conceivable detail of ship's routine from the temperature of salt water baths in winter (never to exceed 60°F) to the inspectoral arrangements for young officers brushes and combs - (mustered twice a month by the ship's Writer). For every activity on board there was a laid down routine and it was possible, in theory anyway, to account for virtually every minute of Cadets' daily activity from 0525, when those under Number Two punishment were to muster, until 2130 when evening prayers were completed and young officers returned to their hammocks.

Within the regulations was an outline of what was termed the 'Scheme of Education in Use', which provides a useful insight into the educational progress made by the end of the period. By 1877 there were 16 staff involved with the instruction of young officers, the largest number to date, with the bulk of the work being handled by eight Naval Instructors who taught solely mathematics and were responsible for one class of students throughout their time in the ship. Although this group were all serving officers and their leader had the title Principal Naval Instructor, by this time the post was held by a civilian, a young former public schoolmaster, Revd J C P Aldous. Despite the fact that he had no previous naval experience

he had been appointed in 1875 presumably as part of the transition process to a shoreside college, which the Rice Committee had indicated 'should approximate as far as possible to the conditions of the best public schools'.¹³³ In addition to the Naval Instructors a Staff Commander taught Chartwork and Instruments, the Ship's Chaplain was responsible for Geography, Science and Astronomy and completing the teaching staff were masters responsible for French, Latin and Drawing.

Instructional time was divided into Winter and Summer routine - a system designed to make maximum use of daylight and ensure that several hours could be spent each day undertaking sport and practical boatwork. In either mode a central core of six hours academic instruction was supplemented by daily 'Early Morning Study' for 30 minutes before breakfast and 'Evening Study' for one hour every day except Sunday. It will be noted from the subject responsibilities of the staff that by 1877 almost no instructional time was available for English Grammar, Literature or History and that the original Woolley proposals for elementary chemistry, botany and simple zoology had not been implemented. Indeed by this date writing and compositional skills were restricted to one hour's dictation per week and to the production of one essay per term. 'All books for private reading' warned the 1877 regulations 'are submitted to the Principal Naval Instructor for approval' and on no account were Cadets to read novels on Sundays.¹³⁴

The impression of rigid organisation and close supervision was further strengthened by examining the

directions to Naval Instructors and other Masters, who were required to submit daily reports of the 'attention' demonstrated by their students and monthly reports of their progress. Report books were apparently submitted to the Captain at the end of each working day and a weekly review of those making 'Most and Least Progress' was conducted. Any Cadet who demonstrated a degree of attention to study described as 'moderate' or less was liable to punishment.

The correctional routine in 1877 was still characterised by the three classes of punishment established by Captain Powell¹³⁵ - with the additional supplement that when these proved ineffective with the persistently troublesome, the caning of Cadets 'had been tried and found most beneficial'.¹³⁶ This practice had been reintroduced after almost six years of suspension in December 1872, although it remained seldom used. A survey of the ship's punishment books from 1873 to 1877 for example suggests that under Captain Foley only 16 Cadets had been physically punished in three years, and under his successor Captain William Graham, the average was little more than seven per year. Beating was awarded for a variety of offences, with breaking bounds either by entering barns and farmhouses or going aboard vessels in the harbour, frequently cited. Any form of bullying or 'fagging' was inevitably dealt with by corporal punishment, although it is clear that in the Britannia the most serious breaches of discipline were considered to be theft or immorality, for which culprits were dismissed from the Service.

The 1877 Regulations present a picture of a highly structured training routine in which conduct and progress was both academically and professionally very closely monitored. The syllabus which, in the wake of the Rice Report, again included significant portions of Seamanship instruction, was probably narrower than at any time in the previous decade with only French, Latin and Drawing to alleviate an academic diet of practical and theoretical mathematics. The working day was physically demanding and the supervision, whether from instructors, staff officers or the ships regulating ratings, was constant. It is also evident, for example, from the 37 separate proforma listed at the end of the publication, that a set procedure existed for every possible eventuality, ranging from the circumstances in which the Captain would, exceptionally, correspond with the Mother, rather than the Father of a Cadet (Form 4), to the monthly examination of the state and condition of a Cadet's Sea Chest (Form 18).

Yet in many ways life in the Britannia might be thought to compare favourably with that of a contemporary public school, for while undoubtedly hide-bound with rules and regulations it was at least constantly under the gaze of the Admiralty, Parliament and the Service press. Perhaps, for this reason, there is little evidence for example of staff eccentricity, and the regular reappointment of both the Captain and his officers guarded against inefficiency and complacency. While the disciplinary routine was frequently invoked it will be noted that corporal punishment was still at this stage comparatively rare and, being a matter of public scrutiny, was

meticulously recorded. Further, unlike a number of public schools, the Cadet Captains (Prefects) had no delegated powers of physical punishment and far from gaining tacit approval, the practice of 'fagging' incurred severe penalties.

The development of Cadet education from 1869 to 1877 saw concerted attempts both to improve the quality of the young officer entrant and the nature of his initial training and education. The commissioning of a replacement training ship, the drafting of new regulations, the advent of competitive entry and the appointment of both minor and major enquiries into the system were tangible evidence of interest and concern. Yet serious doubts must be expressed about the degree of progress actually achieved by the end of the period. Despite a reducing manpower requirement by 1877 the Admiralty had readopted the system of absolute nomination, the attempt to found a naval college had come to naught, and academic training of a particularly narrow variety continued to be conducted in the Britannia which by this time resembled neither a school, or the contemporary warship she had originally been intended to emulate.

The opening two years of the period, and in particular the advent of the Childers' administration, are those most distinctly identified with change. While it should not be forgotten that his predecessor, Henry Corry, had identified shortcomings in the Britannia system, had been responsible for the appointment of Woolley as external examiner and had advised Childers personally of the need to tackle the problem of 'the number of dunces in

the lower branches of the Service'¹³⁷, it was undoubtedly the new Liberal First Lord who initiated the change of pace in naval educational affairs.

This may be observed primarily in the new regulations of 1869 and 1870 which constituted the first significant change in a decade, and whose primary improving measure was the advent of limited competition. In retrospect this appears a modest and logical device, undoubtedly driven by Childers' overall concern for order and regularity in naval manpower, particularly at a time when the requirement for young officers was declining drastically. The logic of introducing an element of competition both to reduce numbers and raise standards appeared impeccable, particularly when it is borne in mind that at no time was it ever suggested that senior officers' privileges in the matter should be modified or withdrawn. This being the case, the subsequent reaction of antagonism and dismay throughout the officer corps appears out of proportion, and must surely have been based on the notion that the measure constituted the first step towards truly meritocratic selection via open competition.

It is clear that other aspects of the 1869/70 Regulations, such as the lowering of the entry age and the reduction of seamanship teaching in favour of academic study implied a shift in general philosophy away from the notion of a warship dedicated to training, towards the concept of a school afloat. Once again this appeared logical, for if the Service was determined to take more capable youngsters at an earlier age, there was a need to establish sound educational foundations. Similarly as

each year passed, the Britannia resembled less and less a ship of the active fleet and all modern relevant professional skills, apart from basic seamanship, were now best taught in the operational vessels of the fleet.

The most evincing argument in support of the trend towards professional and academic segregation was undoubtedly the decision to appoint the Woolley Committee to report on a future curriculum. The existence of this group appears to have gone completely unnoticed in any previous account, yet their wide ranging remit and the conscious decision to consult experts with no previous naval knowledge emphasised the shift in the Admiralty approach towards Cadet's education. As might be expected from a group containing two headmasters, the Woolley recommendations were unambiguous that the entrance examination and the syllabus taught in the ship should be formulated to comply as far as possible, subject to naval requirements, with the practice adopted by British public schools.

The personal contribution of Joseph Woolley to this process was particularly important. His place in naval education prior to 1869 has been discussed previously and it has been shown that Sullivan's view that Woolley 'was not able to initiate policy... but would merely give his opinion when asked for it'¹³⁸ seriously underestimates his contribution. With the arrival of a Liberal administration and a First Lord prepared to bypass the established pattern of decision making and rely on individual advice, the Director of Education's influence was further extended. This has already been noted in his

work for the Shadwell Committee, where he was an early and vigorous supporter of the Greenwich option, at a time when its unpopularity and expense appeared to preclude it. His contribution to Cadet education was no less significant, for it has been shown that the move to align the Britannia with public school practice was initiated by Woolley, that the committee responsible were largely his nominees, and that its recommendations were wholly accepted by the Admiralty Board.

The fact that the Woolley recommendations were never fully implemented up to 1874 was probably due to a combination of factors - not least his own absence from the scene, first through illness and later by resignation. It is clear that some momentum was lost during the years 1872-74, and Goschen's unwillingness to expand and uprate the post of Director of Education, as Woolley suggested on his departure, meant that a golden opportunity to provide some central direction to training was missed. The alternative chosen - to place the Britannia under the supervision of the newly founded Royal Naval College, might well have been a judicious one, if it had also been the intention to give Greenwich some autonomous educational authority. Despite the efforts of the first Admiral President¹³⁹ this was not a task that the Admiralty felt able to devolve, with the result that by early 1874 external supervision of the training ship had been emasculated and the sense of purpose injected by the Woolley Committee had been lost.

Despite dark mutterings in the contemporary Service press of a 'Britannia plot', by enemies of the ship, 'to break up an institution that has been of great value',¹⁴⁰ the decision to appoint a Committee of enquiry into the training ship appeared to be rooted in firmly empirical ground. Her poor health record was a matter of fact and the decision to appoint Captain Foley, directly from a harbour training ship, in order to institute an improvement programme was tacit admission of existing problems. Thus, however wayward the evidence of the Medical Director General concerning the ship's suitability, it was clear that there was at least a case to answer and that it was raised at the critical moment when the new First Lord, George Ward Hunt, was undertaking his initial review of priorities.

Despite Statham's claim that it was not clear for what reason the Admiralty decided to appoint the Rice Committee,¹⁴¹ in fact the experience of the years up to 1874 was fully reflected in the Committee's remit to examine 'whether conditions under which naval cadets are trained on board HMS Britannia are favourable to their physical development'.¹⁴² It is important to remember, when reviewing the Rice findings, that any consideration of the nature of education conducted in the ship was always intended to relate to the issue of health and well being ie. the extent to which academic study for example overtaxed the young officer. This being the case the membership of the Committee - three naval officers, two naval doctors and two Oxbridge academics may initially have been thought appropriate.

It was evident, however, that despite the length and detail of its deliberations the Committee failed to address matters within its remit either expertly or independently. This was evident even in the relatively short examination of habitability which should, in theory have constituted the stuff of the report. While extensive medical testimony was certainly taken, it was significant that, with the exception of the Medical Director General, a resolute opponent of the ship, it was gleaned from staff with direct responsibilities for Britannia or her shoreside sick quarters. It was thus clearly of direct professional interest for the Staff Surgeons to insist that, while there had been problems in the past, things had now immeasurably improved. While this was probably true, the absence of any truly independent assessment must raise doubts particularly when, for reasons not stated, the Committee remained implacably opposed to any extension of training time in the ship.

The apparent contradiction between awarding the ship a clean bill of health, while refusing to countenance an extension of training time unless a college was built, remained unexplained. Yet it was education, and in particular the mode of entry and future syllabus that absorbed the majority of the Rice deliberations. On the former matter, while they claimed to have recommended the abolition of competition specifically upon educational grounds, it is apparent from the evidence that it was the views of naval staff, rather than educators, that held sway. Perhaps the most pertinent observation to make about the decision was the extent that it swam against the

tide, not only in other professions, but within the Service itself where the systematic reduction of manpower and the retention of absolute nomination were fundamentally incompatible. A little over five years later the Service re-introduced limited competition of even greater rigour¹⁴³, and in 1882 the examination, by this time described as of 'absolutely ferocious stringency',¹⁴⁴ was transferred to the Civil Service Commissioners.

It has been noted that the Rice deliberations represented an unravelling of the work of the Woolley Committee and recommendations such as the removal of compulsory French from the entrance examination, the raising of the profile of Latin in the syllabus and the return to absolute nomination ran exactly contrary to the Woolley proposals. That the work of this group consisting almost entirely of professional educators should be so systematically dismembered, while unfortunate, was at least only a temporary setback. The succeeding regulations of January 1881 reversed the judgement on both Latin and French and together with the readoption of limited competition helped return Cadets' education to the guidelines established by Woolley eleven years previously.

A more permanent setback was the failure to bring to fruition the Rice measure with the best long term prospect of improving the quality of initial education in the Service - the proposal to found a naval college. This was hardly a new concept, for it had been under discussion periodically almost since the training ship commissioned, and had come close to adoption following a recommendation

of a Select Committee in 1863. Neither was it ever advocated with particular conviction, and in particular the essential corollary to the argument, namely that the Britannia was no longer an appropriate venue for naval training, was always missing from the college case. Nevertheless, despite previous comment to the contrary, it probably came closer to fruition in the two years after 1875 than at any other time previously, with Ward Hunt allocating money, negotiating for a site and appointing a Committee to investigate the question, before finally deciding to proceed with the project at Dartmouth.

It has been shown that this impetus was achieved largely by Ward Hunt's personal identification with the project and that it did not survive a change of First Lord. By the time of his death the process had run into legal difficulties concerning the acquisition of land and the new incumbent W H Smith, a man 'intelligent enough to appreciate arguments for reform, but politically unable and temperamentally unwilling to crusade for them',¹⁴⁵ had no previous Admiralty experience and was not prepared to award the matter any priority. In this he was undoubtedly assisted by both the Rice Committee's unwillingness to offer any real criticism of the Britannia and the fact that the so called parliamentary pressure for a naval college was little more than constituency self interest. With the vote of confidence implied by the decision of the Prince of Wales to enter his sons Prince George and Prince Edward into the Britannia in July 1877, Smith had a further and perhaps indisputable reason to take no further action in the matter.

The years from 1869 to 1877 thus saw mixed fortunes in the development of initial education in the Royal Navy. The degree of political autonomy established by Childers' reform of the Admiralty Board certainly enabled progress to be made but equally, depending on the inclination of the First Lord, it also allowed development to falter. Clearly some matters had a logic and impetus that could not be long impeded - the advent of competitive entry for example, while suffering a temporary reversal in 1875, was inevitable. Similarly the practice of eliciting expert educational advice from external sources became standard after 1870. Yet a sense of missed opportunity rather than overall progress might be thought to characterise the period. The decision not to proceed with a naval college for example, meant that scope for expanding the quality and quantity of training would remain limited and that the Britannia - daily less like a warship, yet having none of the advantages of a school, would be seen as increasingly eccentric and isolated from the affairs of the nation and the Navy. The failure to establish any central direction and control to naval education in the wake of the abolition of the post of Director of Education also meant that for a further two decades progress would always remain tentative and spasmodic.

Chapter Five - Notes

1. Admiralty Circular 46c 3 August 1869 ADM 1/6156
2. Navy List (correct to 20 December 1865) p293
3. ADM 1/6156 op cit
4. ibid
5. ibid
6. Naval Chronicle 1 July 1864 p79
7. Naval Chronicle 1 August 1860 p90
8. ibid
9. Naval Chronicle 1 April 1868
10. ibid
11. vide Chapter Three
12. N A M Rodger 'The Dark Ages of the Admiralty 1869- p334
85' Part One Mariners Mirror Vol 61 (1975)
13. ADM 1/6156 op cit
14. ibid
15. This was the steam frigate HMS Bristol commissioned in 1868.
16. In the wake of the new regulations Childers wrote to the First Naval Lord, Sir Sydney Dacres noting that 'while in the circumstances the remedy proposed is best' but that the failings in education were 'everywhere connected with want of organisation on the part of higher authority'. Childers to Dacres 22nd August 1869 ADM 1/6110
17. Woolley to Dacres 15th October 1869 ADM 1/6121
18. ibid
19. Childers to H M Butler 18th October 1869 ADM 1/6121
20. Lushington to Dr Alfred Barry 29 October 1869 ADM 1/6110
21. ibid
22. Committee on the Education of Cadets in the Royal Navy (The Woolley Report) ADM 1/6124
p4
23. ibid
24. ibid p5
25. ibid p6
26. ibid

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| 27. | ibid | |
| 28. | ibid | |
| 29. | ibid | p9 |
| 30. | ibid | |
| 31. | ibid | |
| 32. | Admiralty Circular 3c 6 January 1870 | <u>ADM 1/6110</u> |
| 33. | E P Statham <u>The Story of Britannia</u> (1904) | p79/80 |
| 34. | J G Goodenough <u>The Preliminary Education of Naval Officers</u> . Paper presented at the Royal United Services Institution 20th March 1871 (Private Circulation) | p353 |
| 35. | A P Ryder <u>The Higher Education of Naval Officers</u> Paper presented at the Royal United Services Institution 26th June 1871 (Private Circulation) | p8 |
| 36. | ibid | p7 |
| 37. | <u>Navy List</u> (correct to 20 December 1865) | p293 |
| 38. | <u>Naval Chronicle</u> 1st October 1871 | pl17 |
| 39. | <u>Committee on the System of Training Cadets on Board HMS Britannia</u> (The Rice Report) Cl154 | pa2160 (1875) |
| 40. | ibid | pa2161 |
| 41. | ibid | pa2159 |
| 42. | E P Statham op cit | p87 |
| 43. | R Tupper <u>Reminiscences</u> (N.D.) | pl8 |
| 44. | Rice op cit | pa724 |
| 45. | 'Present Duties of the Director of Education for the Navy' | <u>ADM 1/6330</u> |
| 46. | Woolley to Camperdown 4th June 1872 | <u>ADM 1/6330</u> |
| 47. | ibid | |
| 48. | ibid | |
| 49. | ibid | |
| 50. | Superannuation Papers of Revd Joseph Woolley LLD | <u>ADM 1/6330</u> |

Chapter Five - Notes (continued)

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| 51. | Camperdown to the Secretary of the Treasury
21st January 1874 | <u>ADM 1/6330</u> |
| 52. | Admiralty Circular 21st March 1874 | <u>ADM 203/1</u> |
| 53. | Admiralty Board Minute of 22nd May 1874 | <u>ADM 3/286</u> |
| 54. | It is instructive to note that despite the fact that Woolley's department ceased as the supervisory authority in December 1873, as late as July the following year the Admiral President of the Royal Naval College refused to express a definite opinion as to the scale of instruction on board the <u>Britannia</u> , until he had become acquainted with the details of the work. - Cooper Key evidence to the Rice Committee. op cit pal401 | |
| 55. | E P Statham op cit | p87 |
| 56. | Rice op cit | pa423 |
| 57. | ibid | pa699 |
| 58. | ibid | pa615 |
| 59. | vide Chapter Three | |
| 60. | <u>Statistical Report of the Health of the Navy for 1871</u> p7 | |
| 61. | ibid for 1870 | p9 |
| 62. | ibid for 1871 | p8 |
| 63. | Rice op cit | pa2022 |
| 64. | ibid | pa2019 |
| 65. | ibid | pa2012 |
| 66. | ibid | pa2024 |
| 67. | J H Briggs <u>Naval Administrations 1827-92</u> (1897) | p199 |
| 68. | Rice op cit | Preface |
| 69. | Also members of the Committee to enquire into the establishment of the Royal Naval College Greenwich vide Ch4 | |
| 70. | Rice op cit | piv |
| 71. | ibid | p9 |
| 72. | ibid | pal17 |
| 73. | ibid | pa83 |
| 74. | ibid | pa473 |
| 75. | ibid | pal18 |

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76.	ibid	pa496/97
77.	ibid	pvi
78.	ibid	pvihi
79.	ibid	
80.	ibid	pxiii
81.	ibid	
82.	ibid	
83.	ibid	pal920
84.	ibid	pa3179
85.	ibid	pa2199
86.	ibid	pa3292
87.	ibid	pal705/06
88.	ibid	pal848
89.	ibid	
90.	ibid	pal851
91.	ibid	pal592
92.	ibid	pxiv
93.	ibid	pxiii
94.	ibid	pix
95.	ibid	pxvi
96.	ibid	
97.	ibid	pix
98.	ibid	px
99.	ibid	
100.	ibid	pxi
101.	ibid	
102.	ibid	
103.	ibid	pxii

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104. F B Sullivan The Evolution and Development of Education in the Royal Navy Reading PhD (1974) pp297/98
105. Navy List (correct to 20 December 1875) p381
106. F B Sullivan op cit p311
107. E P Statham op cit pl03
108. S Bonnett The Price of Admiralty (1968) pl28
109. Naval Estimates 1875-76 pl10
110. Armstrong to Ward Hunt Parliamentary Paper 313/1875
16th April 1875
111. Corbett to Sir Massey Lopes Parliamentary Paper 313/1875
16th June 1875
112. Statement showing the Cost of Cadets under Training on HMS Britannia Parliamentary Paper 303/1875
113. Broad Arrow 11th July 1874 NP
114. ibid NP
115. United Services Magazine 1877 Part Three pl04
116. ADM 116/685
117. Committee to advise as to the most desirable site for a College for Naval Cadets C 1673 (The Wellesley Report)(1877)
118. E A Hughes The Royal Naval College Dartmouth (1949) pl8
119. E P Statham op cit pl03
120. F B Sullivan op cit p311
121. Wellesley op cit p5
122. Hansard 3rd Series VOL CCXXXII (1877) cc1206/07
123. Hansard 3rd Series VOL CCXXXIV (1877) cc267/268
124. Hansard 3rd Series VOL CCXXXV (1877) c816
125. Correspondence relating to the Mount Boone Estate Parliamentary Paper 356/1877
126. ibid
127. Hansard 3rd Series VOL CCXXXVI (1877) cc12/13
128. United Services Magazine 1877 Part Three pl04

Chapter Five - Notes (continued)

129. ADM 116/685
130. ibid
131. ibid
132. Committee to inquire and report on the Education of
Naval Executive Officers (The Luard Report) c4885 (1886)
133. Rice op cit pxii
134. Regulations for Her Majesty's Ship Britannia (1877) p65
135. vide Chapter Three
136. Regulations (1877) op cit p39
137. Hansard 3rd Series VOL CCXXVI (1875) c.447
138. F B Sullivan op cit p274
139. vide Chapter Four
140. Broad Arrow 11th July 1874 NP
141. E P Statham op cit p94
142. Rice op cit Preface
143. Under Regulations introduced in January 1881 only one third
of those nominated could be entered.
144. E P Statham op cit p119
145. N A M Rodger The Dark Ages of the Admiralty 1869-85 p34
Part Two Mariners Mirror Vol 62 (1970)

Conclusion

The years 1857 to 1877 have frequently been seen as constituting a general stasis in naval affairs, characterised by a principled reduction of expenditure, declining numbers of officers and men, public indifference and a lack of any significant party political dichotomy on Service matters. As a general overview or summary of the period it is difficult to take issue with any of these points, for a Navy which saw no significant increase in its budget over 25 years and whose manpower vote in 1860 would not be matched again until 1894, was clearly in the doldrums. When this was set against the need to fund nothing less than an industrial revolution in ships and equipment, in an era when minor but persistent operational demands continued to pressure resources, it is easy to see how the Service frequently appeared to have lost positive direction and momentum.

Yet beneath this slack water there was a strong counter current which was steadily, almost imperceptibly, moving the Navy to a position which would enable it to respond to future changes in political resolve. Many of the constituents of this movement were tentative and short lived, and even important measures with long term implications for the Service were considered unremarkable at the time. The introduction, for example, of sailors' uniform, modifications to discipline and punishment procedure, the establishment of career patterns and orderly routines for retirement were matters of little national importance or public concern, yet taken together it may be argued that they helped produce the social transformation which allowed the rapid expansion of the Royal Navy in the

last decade of the century.

The development of naval education has some claim to be part of this positive undercurrent. While it was seldom prominent on an agenda pressurised by expenditure and manpower cuts, problems in ship design, and operational decisions concerning literally matters of life and death, it nevertheless made considerable if rather erratic progress in the two decades from 1857. This advance had two distinct characteristics. First, many improving educational measures were defined in and derived from, other areas of Admiralty concern. The Britannia, for example, was conceived primarily to counter the officer retention problem of the 1850s. Two decades later the advent of 'limited competition' was a measure to reduce numbers at a time of manpower stringency, and its subsequent suspension, while justified on educational grounds, was a transparent attempt to consolidate the structure of the officer corps by returning selection to its own senior staff. Thus not only did education occupy a relatively low place on the naval agenda, but it was commonly employed as a device or regulator of more general manpower problems.

Secondly, it is clear that, despite considerable efforts applied to the improvement of initial and higher study, at no time between 1857 and 1877 were the total educational needs of the officer corps systematically examined or reviewed. While shortcomings in one area were occasionally cited as justification for improvement in another - as in the Shadwell defence of higher study - no comprehensive overview was ever attempted. The result was that while the principal characteristic of the period was

the pattern and order imposed upon naval training, this was seldom itself the product of an orderly or sequential process. Not only was this true in the relationship of education to other naval activity but it also applied to the relationship between initial and higher education where advances were frequently disparate and unrelated.

Any satisfactory understanding of initial education must centre on the evolution and development of the officer training ship. Given that this institution trained and educated almost every senior naval figure to serve up to and beyond the First World War, it is surprising that no detailed analysis of the curriculum and routine has been previously undertaken. No detailed attempt for example has been made to explain the conditions of her commissioning, and accounts of the ship's history are essentially two dimensional. There has been a persistent tendency to portray Britannia as a harsh, even brutal, institution with a regime dedicated to the acquisition of inappropriate, outmoded practical skills and where all academic work was subordinate to athletic prowess.

While this vision has undoubtedly been consolidated by senior officers' memoirs, original research suggests a different picture. It will be apparent, for example, that the Britannia system was a direct and logical response to the disastrous attempts undertaken since 1837 to enter and educate young officers solely in seagoing ships - a system responsible for a generation of young officers of such poor quality and low retention rate that the trained list was always under pressure. It has also been shown that the creation of this specialised training environment was

synonymous with a strong sense of pastoral care, and that far from an atmosphere of brutality, the first 20 years of the Britannia were infused with concern for the moral and physical welfare of young officers. While conditions were austere and discipline rigorous, it is clear that the lurid accounts of frequent physical punishment have no factual basis. In fact the regimes of successive commanding officers were models of temperance and restraint, and isolated examples of eccentric leadership were countered swiftly and firmly by an appropriately concerned Admiralty Board.

A similar sense of perspective must be applied to the nature of the ship's curriculum which, despite assertions to the contrary, was always heavily academic, with a strong bias towards mathematics. While the syllabus was narrow in concept and limited in scope, particularly with reference to history, geography and literary skills, it clearly formed the central core of the training, and while practical work was important, it was always subordinate and over two decades was gradually reduced, in favour of yet more study. Thus while recollections of Britannia inevitably emphasise the pursuit of practical boatwork or sail-based seamanship, and while the relevance of this type of training has subsequently been called into question, the evidence suggests that the bulk of a Cadet's training time was spent pursuing the mathematical skills essential to the seagoing profession.

It will be evident that considerable official interest and attention was devoted to the Britannia and that the 20 years from 1857 reveal a constant sense of ebb and flow in

the philosophy applied to young officers' education. In part this was inevitable, for the mechanisms for revision and review were inherent in the Britannia constitution. The ship's routine, for example, was always subject to a degree of re-alignment with the arrival of each new commanding officer, and successive Admiralty administrations inevitably adjusted priorities towards the training curriculum. Similarly, the contributions of a series of outstanding individuals such as H C E Childers, George Ward Hunt, Robert Harris and Joseph Woolley, ensured that the profile of the Britannia remained high and that her work was never far from the concern and care of the Service.

It will thus be apparent that the portrayal of the ship as a stagnant institution adhering to a set of outdated concepts and values is quite inaccurate. Similarly, the ingenious view that the Britannia represented a conscious attempt to recreate the Navy of two generations past, or that her routine was an exercise in pseudo-realism, are not supported by the evidence. In fact the early years of formal officer training were characterised by lively and informed debate. There was, for example, a continuous review of the value of practical training in the new entry syllabus, which resulted in the logical and ordered segregation of professional and academic work. There was also a persistent and sometimes acrimonious discussion of the value of competition within the entrance procedure. Perhaps most significantly, there was always a debate about the relevance and value of the Britannia itself - in particular whether her work might be better conducted in a shore based institution.

Nevertheless, it is important to emphasise that the Britannia system of officer training was both unusual and

significantly different to methods adopted by other important maritime powers, particularly Russia, the United States and France. Only in Britain, for example, were attempts made to undertake continuing education in operational warships, and only in the Royal Navy was a corps of Naval Instructors maintained. Unlike her competitors, who were prepared to accept entrants often as old as 18 and never less than 14, the British not only persisted with early age entry, but actually reduced the minimum to 12 during the period. Similarly the other major powers all practised some form of shoreside education - at St Petersburg (1752), Annapolis (1845) and Brest (1848) - while the Royal Navy persisted with the training ship system into the early years of the twentieth century.

Not only was the British system highly esoteric but it also commanded considerable support from its own officer corps. While there was an extensive debate about whether training should be conducted on ship or ashore, there was little dispute about the nature of the work to be undertaken or the priorities involved. At the heart of the British system was a basic requirement for young officer candidates to be selected exclusively, via the nomination system, by members of the existing officer corps. They were to be imbued with the qualities of physical toughness, honour and courage required by a military officer, and these characteristics were to be instilled at the earliest possible age. The process did not preclude academic study - indeed the pursuit of superior mathematical skills lay at the heart of Cadet training - but it did imply that such work should remain narrowly interpreted and vocationally orientated.

Indeed so confident was the Service about the priorities

in an officer's early years, that it was prepared to acknowledge that in certain areas other systems were superior. The Rice Committee, for example, noted the advantages reaped by major naval competitors who entered candidates later and trained them longer.¹ Shadwell was even more forthright, concluding that foreign students were 'better grounded in all appertaining to book learning' and that 'having received a greater amount of mental training must be better qualified to enter on more advanced studies'.² Yet recognition of these advantages played little part in modifying the British approach, where it was felt that deeper and more fundamental aspects of a young officer's character were to be moulded and produced.

It was also implicit within the British system that only the Royal Navy could undertake this task. This was a private world, where the selection of the next generation of young officers was considered to be a matter solely for the Service, and even the suggestion that the examination of candidates for example, might be placed on a broader, more meritocratic basis was enough to provoke hostility and resentment. Similarly, it was felt that all education must be undertaken within an exclusively naval environment, and while there was considerable admiration within the officer corps for the work of the English public schools, the requirement for very young Cadets always precluded a post-school entry. Thus there was never a naval equivalent to the 'military stream' within the public school system, and the increasing tendency of the British army to attract university graduates in these years³ had no parallel in the Royal Navy.

It will be clear from this thesis that previous accounts of the development of initial education in the Service have

been based upon misinterpretation and insufficient evidence, and that far from inactivity or anachronistic self indulgence, the years 1857 to 1877 were characterised by a sense of tentative, but clearly identifiable progress. While advances in the field were frequently experimental or makeshift, rather than the components in the evolution of a coherent system, and while to the external observer they may have appeared quirky or eccentric, there is little doubt that in the exclusive world of the Royal Navy, progress seemed logical enough. Detailed research suggests that although mistakes were made and opportunities missed, for the most part the provision of Cadets' education was pursued in a diligent and constructive manner.

The development of higher education during these years stood in marked contrast to the fortunes of HMS Britannia, and is inextricably linked with the activities of the Liberal government 1868-1874, and in particular with the naval administration of H C E Childers. Prior to his arrival at the Admiralty the academic needs of trained officers had been inadequately met by an underfunded, scarcely resourced establishment that saw only a fraction of the officer corps. While the Royal Naval College, Portsmouth was not without significance and could certainly not be dismissed as a 'cramming' establishment or an institution dedicated solely to technical training, it was clear by 1869 that the valuable work it undertook was insufficient for a Service in the midst of a scientific revolution. Childers' unique contribution was both to recognise this and, via his characteristic dispensation with established procedure, to initiate personally the process of change.

It is important to stress that although previous First Lords had demonstrated sporadic interest and concern with higher training, Childers was the first to arrive in office with the express intention of introducing reform. His previous Board experience and an established record of achievement in educational administration, made him uniquely suited to the task and his contribution may be seen as two fold. In the general sense, his overhaul of Board membership and procedure, and in particular the dominance of the political over the professional view that this produced, meant that from 1869 traditional obstacles to reform were removed. While this overhaul was undoubtedly insensitively introduced and operated, it was nevertheless the essential pre-requisite for future change in a number of areas including officer training. It was this structural change that prompted the advance in higher education from 1869 to 1874 and, combined with Childers' personal interest, helped to explain how an Admiralty administration acknowledged as one of the most retrenched of the century, could also be the harbinger of educational advance.

In addition to the general re-structuring of procedure Childers also made a series of specific contributions to the reform process. In Cadet education these included the provision of a replacement training ship, the introduction of competitive entry and the appointment of the Woolley Committee - the first to employ external advisers and probably the most 'expert' of the period. In higher education his sponsorship of the first systematic and detailed examination of the facilities for advanced study, via the Shadwell Committee, set in motion a process that laid the foundation of the Royal Navy's modern higher education

system. As such, Shadwell was of considerable significance, not least because it contained the vital acknowledgment that the existing nature of initial training and the inadequacy of education at sea, implied a mandatory return to higher study later in an officer's career.

Yet it is clear that while the Shadwell Committee was a vital component in the reform process, their conception of higher education was essentially conservative and limited in scope. Indeed there can be little doubt that, had the views of its naval members prevailed or the financial question been paramount, the new college they recommended would merely have been an extension of the existing facility at Portsmouth. In fact by the time this establishment opened in 1873 it represented not only the less popular and more expensive option considered by Shadwell, but also a significantly different institution to the one envisaged even by the advocates of the Greenwich case. This thesis has shown that the period between the publication of the report and the opening of the new college was thus a crucial one in the history of naval education. In particular it has demonstrated that the interregnum was not the product of indecision or the need for further adjudication, but rather the result of a process of political expediency in which the overwhelming feeling within the Service was overturned and large sums of money expended by one of the most frugal naval administrations of the century, in order to consolidate the Prime Minister's constituency power base.

That the new college was larger and more comprehensive than the original model was undoubtedly due to the Tarleton Committee's deft exploration of the political dimension in this decision. The key point to make about this Committee,

and one that has not been previously understood, was that it was appointed after the Cabinet decision had been taken to move to Greenwich. The establishment of this political imperative thus gave Tarleton the latitude, even in a period of stringent naval economy, to expand in almost every respect the Shadwell vision of a higher education establishment.

The overwhelming irony was that although the Royal Naval College was of a scale and magnitude that could hardly have been foreseen by the most ardent reformer, and although it represented a new liberality in the provision of higher education, all the evidence suggests that it was not what the Navy felt it required. For most naval officers of the 1870s the principal characteristic of advanced study was that it should be inextricably linked to practical application, and this in turn implied a colocation of college and working dockyard. This being the case, the early years at Greenwich were almost inevitably condemned to a faltering progress, for leadership was invariably invested in senior officers previously on record as favouring the antithesis of the College they led.

Thus despite the provision of first class facilities and the injection of considerable finance, it is clear that the sense of confidence that underpinned the concept of initial training was lacking. This was evident not only in the general antipathy of the officer corps, but also in Admiralty conduct towards the new establishment. Despite the fact that Greenwich was clearly not what the Navy wanted, the Board approach remained ambivalent for some years after it was clear that its case had been lost. While they were prepared for example to invest the leadership of the College in an officer of Flag rank - a man who would normally command a

fleet of ships and thousands of men - there was a marked reluctance to award him any latitude or personal initiative in determining policy. The result was that a succession of Admirals' President, men described by one commentator as distinguished 'for breadth of view, maturity of judgement and mental vigour',⁴ far from shaping the progress and character of the institution, were required to petition the Board on even the smallest detail relating to college organisation.

The foundation of the Royal Naval College, Greenwich undoubtedly represented a major advance in higher education provision. By almost any measurement - number of students, staff, administrative and technical support, range and content of courses - it constituted a step change over the facilities at Portsmouth. Yet it was also clear that the reorganisation was less than total, and that in particular there had been little devolvment of policy determination to the college authority. This remained the responsibility of the Board - an inexperienced, frequently changing group whose views, no matter how well considered, were always vulnerable to political interference. The result was that educational policy continued to be devised on an 'ad hoc' basis, with an ill defined distinction maintained between the formulation of policy and its application.

To some extent this shortcoming bedevilled the overall development of naval education throughout the period and it was thrown into stark relief with the retirement of Joseph Woolley, and the subsequent abolition of his post. This thesis has shown that Woolley was a major figure in the development of officer education whose influence was seldom absent from any important advance and who, contrary to previous assertion, was capable of both initiating and

executing policy. Yet the scale of his contribution and his formal title 'Director of Education' must not be confused with any notion of central control or authority. Indeed in his valedictory letter Woolley made it clear to the Board that it was this vital imperative that had been conspicuously absent during his time, and that the single most important reform in naval education would be to elevate his post to the equivalent of other heads of department. Only in this way could the future pattern of officer training be determined in a disciplined and logical manner.

The failure of the Board to comply with Woolley's request, but merely to add his post to the existing duties of the Admiral President at Greenwich was both a missed opportunity and a retrograde step. While Woolley's formal power was never great he did at least possess a degree of independence and permanence in the post. Awarding the task to a senior serving officer militated against both of these qualities and meant that successive Admirals' President, denied by the Board any real autonomy, would be forced to treat the task largely as an administrative burden. Thus, far from improving the direction and control of naval education the reassignment of the position meant that impetus was lost. In the short term this was evident in the Britannia, where the diligence and application that had characterised the inspectoral process faltered at a crucial point in the development of the syllabus. In the longer term it meant that the scope and nature of officer education would continue to be determined by makeshift and experiment, rather than the construction of a coherent, identifiable system.

This disparate approach so puzzled American academic James Soley that in 1878 he concluded his detailed study of

the world's most powerful navy by observing that 'the high scientific and professional attainments of many English naval officers are not in consequence, but in spite of their early education'.⁵ While it is easy to understand Soley's sense of bemusement, his judgement seems harsh - particularly when it is remembered that at this stage the Britannia system was scarcely 20 years old and the Royal Naval College considerably less. Nor, unlike the United States or Japan, did the Royal Navy have the advantage of establishing a system untrammelled by historical associations and precedents that in part militated against systematic planning. Given these considerations, and that the first two decades of formal educational provision in the Service were almost exactly coincidental with an era of retrenchment in spending and public indifference to naval affairs, it is perhaps more pertinent to note the extent to which the education process did touch the officer corps. For regardless of its uneven pattern of development, by 1877 an identifiable system of education applying to all personnel had emerged. While it certainly lacked cohesion and refinement, and in some areas was demonstrably inefficient, it stood in marked contrast to the conditions at the start of the period.

Yet within a matter of years the dark age of the Victorian navy that had fostered this pattern of officer training was itself drawing to a close. From 1877 the annual naval estimate was never to fall below £10 million again and by 1884 the work of the Imperial Federation League and the 'Truth about the Navy' campaign waged by newspaper editor W T Stead, was effectively bringing to an end the era of public indifference to naval affairs. In the remaining years of the

century, popular pressure obliged successive governments to enlarge the Service, to the extent that by 1896 the Royal Navy was absorbing one fifth of all government expenditure and the Admiralty was employing, directly and indirectly, in excess of two per cent of the working population.⁶

While there is much to support the concept of a new era in British naval history commencing in the early 1880s, it is clear that the change constituted something less than a complete revolution. It has been extensively argued for example, that despite the rapid expansion of the Service and the novel range of artefacts - long range ordnance, torpedoes, submarines and mines - it was called to operate, there was little evidence of an accompanying shift in the values and mental attitudes of its leadership. Both Fisher and Beatty were fierce critics of the intellectual calibre of fellow senior officers,⁷ and Churchill himself complained of 'a frightful dearth of first class men in the Vice Admiral and Rear Admiral lists'.⁸ It has since been popularly argued that, in the midst of considerable scientific progress, the officer corps of the late Victorian and Edwardian navy remained unreceptive to new ideas, and characterised by narrow-mindedness and chauvinism. By 1900, one commentator has claimed, 'even the ablest minds of the Navy lived in the day before yesterday'.⁹

If this view is accepted, it is clearly appropriate to ask how successfully the educational practices established in the period covered by this thesis equipped the officer corps to meet the challenges of the late nineteenth century and beyond. It has been popularly suggested that the paucity of intellect in the officer corps was related, in part at least,

to the fact that its members had received an education heavily imbued with the values of another age - that they were in a sense more fitted for the quarterdeck of HMS Victory, than a modern ironclad.¹⁰ Much has been made, for example, of the disparity between the physical surroundings of the old wooden walled training ship and the conditions in the new mechanised Navy, and in this respect the retention of sail based seamanship in the syllabus is cited as an instance of myopia towards the training process.¹¹ Marder, for example, envisages a direct connection between what he terms 'the faulty, obsolete system of education with its stress on outmoded subjects' and the fact that by 1900 the Navy could boast 'few Admirals of conspicuous ability'.¹²

Yet the evidence of this thesis is that if there was a fault in the Britannia syllabus it was not that it was irrelevant or outmoded, but quite the opposite - that it was far too objectively and vocationally orientated. The academic element, which was considerable and consisted of a solid diet of algebra, arithmetic and spherical trigonometry, was quite specifically designed to produce skilled ship handlers and accomplished navigators, and it appeared to do so. Similarly the element of sail training that remained was not justified on grounds of practical application, but rather because it was felt to enhance relevant character and leadership skills and foster qualities of courage and physical agility considered essential in a military career.¹³ Once again the experience of the late nineteenth century and beyond suggests that bravery, devotion to duty and high morale were seldom lacking in the officer corps.

Other characteristics of the system undoubtedly imposed long-term penalties. The persistent, deliberate policy of entering Cadets at as early an age as possible, meant that their general schooling and contact with those destined for other professions, was completed by the age of 12. All study effectively ceased two years later, and by the age of 15 the young officer was borne on the complement of an operational warship. By any contemporary comparison this was narrow, limited training, and while the academic course may have produced stolid watchkeeping officers, it probably did little for the development of informed judgement. Similarly, the almost total lack of history, geography or literary skills in early training may have contributed to a basic antipathy towards theoretical and academic study of the naval profession, later in a career.

Thus, while there were undoubtedly shortcomings in the training curriculum, detailed research suggests that they were not the ones commonly cited. Neither can they be said to be the product of decadence or haphazard thinking, indeed the evidence suggests that the content of young officer training was based on rigid empiricism and in particular, a narrow objective concept of the work an officer might be expected to perform.

If there was a tangible link between educational practice and the poor calibre of the officer corps, it probably lay less in the Britannia and more in the general approach to recruitment and selection. At the heart of this lay the process of absolute nomination which, while effectively allowing senior officers to select the next generation of naval leadership, meant that recruits were

drawn solely from families with naval connections or influence. Despite the advances in training from 1857, the degree of intellectual ability required for entry remained minimal. Even with the advent of tougher examinations in 1881, the calibre remained low and the recruiting pool shallow - indeed it has been argued that this step merely increased reliance on the quasi-preparatory school or 'crammer'.¹⁴ Thus, the nomination procedure, which continued into the early years of the twentieth century,¹⁵ combined with an Admiralty requirement for at least three years fees for each Cadet, effectively limited catchment to a narrow section of society. The evidence of various enquiries in the two decades from 1857 suggests that the Navy did not attract the best of even this small group.

The problems created by exclusive recruitment and an overly vocational approach were further compounded by prejudice within the officer corps towards technical matters, or more accurately towards those who dealt with them. Clearly by 1900 the Service faced a series of technological challenges that even the most refined member of the executive branch could not avoid. Yet despite this, and the requirement dictated by the mechanised Fleet for closer integration and interdependence amongst the officer corps, the Service insisted on training its young engineers and executives separately. Even later, when courses were co-located at Greenwich, rigid social distinctions, including separate messes, were maintained. Not only did this produce results inimicable to esprit de corps, but the difference in pay, status and conditions first established in the respective training ships,¹⁶ eventually led to a shortage of

technical staff - the very men upon whom the modern Navy with its mass of intricate machinery, would ultimately depend. By 1901 social prejudice towards engineers had become so serious that a deputation of Headmasters, led by Gow of Westminster, petitioned the Admiralty 'to intimate the impossibility of recommending the engineering branch as a desirable career'.¹⁷

Such instances demonstrated that while a narrowly conceived, elitist education system may have been appropriate, or at least passed unnoticed, during the quiescent years of the Service, it was no foundation for leadership in an organisation at the forefront of Britain's second industrial revolution. It is clear that while the requirement for specialisation and technical expertise created by material progress was acknowledged, it also lay most uneasily with many of the traditions entrenched within the officer corps.

Yet despite this unhappy situation and Fisher's energetic efforts to dispense with fees, introduce common training and extend recruitment - in effect an attempt to demolish the principal features of the education system created in the 20 years from 1857 - the Royal Navy showed a remarkable capacity to retain many of the hallmarks established during this time. Although a slight reduction of parental fees was achieved after 1905, for example, the principle of free education for all Naval Cadets was not finally achieved until 1947. Only in that year was the entry age raised to 16, and it was almost a further decade before it was raised again to coincide with the age at which most potential officers finished their education. In this manner both parental fees and early (or at least earlier than

most professions) entry, remained a feature of naval life for the first half of the twentieth century.

Similarly, Fisher's ideal of common training and parity of promotion between the various specialisations of the officer corps also took decades to come to fruition. Despite the success of 'amalgamated training' established in the United States in 1899, the philosophy was deliberately reversed in the Royal Navy in 1925 when, far from striving towards commonality, the officer corps was re-divided into twelve separate categories.¹⁸ The same measure also reserved both ship command and the exercise of military authority exclusively for the executive branch. This decision, subsequently known as 'the great betrayal', effectively limited engineers' advancement until the officer structure was fundamentally revised in 1957. Yet even until recently, certain appointments have remained the sole preserve of executive officers - as late as 1988, command of the Royal Naval College, Dartmouth was one such post, and at the time of writing, no engineer officer has ever become First or Second Sea Lord.

In higher education some of the same limitations that beset earlier training may also be observed, albeit in slightly different form. Although the Royal Naval College was a much larger and more liberal institution than most officers thought necessary, its syllabus was heavily influenced by the aim of 'cultivating the general intelligence of officers to improve their aptitude for the various duties, which a naval officer is called upon to perform'.¹⁹ The problem was that these 'various duties' were so narrowly conceived that the syllabus concentrated almost

exclusively on technical and material matters. Not only did the majority of young executive officers view such pre-occupations with a degree of contempt, but the tendency of this side of the work to dominate naval thought meant that there was almost no place within the Navy's conception of higher study for the examination of broader matters, particularly tactics, strategy and naval history.

Despite the fact that the general naval scene was changing more rapidly than at any time in the century, the value of ships as fighting instruments was still being studied almost solely from a technical standpoint. At Greenwich little time was devoted to thinking about wider matters such as who the enemy might be, or where and how a future battle might be fought. The value of history was widely derided, the study of international law largely ignored, and it was not until 1900 that a modest form of tactical training was introduced, via the Senior Officers War Course. Even this had a limited life span for, in an echo of the previous higher education debate, it was transferred in 1905 to Portsmouth, in order to become 'more practical'.²⁰ Although the Royal Naval College undoubtedly taught to a very high standard, it never attempted to interpret its role in a wider context which promoted not only the acquisition of knowledge, but also the development of broader and more divergent thinking.

One of the effects of this was that while the Royal Navy entered the First World War with the highest standards of seamanship and navigation, and while its officer corps had a morale which 'retained intact the traditions of success that had buoyed them for the last century',²¹ the

organisation had serious shortcomings. The failure, for example, of its higher education establishment to develop any satisfactory staff system, or to examine naval affairs in a wider context, meant that senior officers were frequently cautious, unimaginative and unwilling to delegate. Conversely their subordinates, whose naval historical knowledge amounted only to tales of heroic action and daring deed, waited in expectation of a second Trafalgar, and wondered in what manner the new Nelson might appear.²² At the heart of an organisation with many admirable qualities, there was a lack of strategic and tactical awareness, and an incoherence in fighting doctrine that would both cost the country dear and, by 1918, effectively end the love affair between the Nation and its Navy.

Yet it could be argued that the limitations of higher education detectable in the period of this study had an even more profound effect on the development of the Royal Navy in the twentieth century. For the lack of systematic naval history teaching and of serious strategic or tactical contemplation in the early years at Greenwich, did not simply leave a vacuum, but was rather replaced by the arguments of what Richmond has termed the 'School of Experience'.²³ Here it was maintained that the only place to learn about maritime strategy and tactics was actually at sea, where, as Till has caustically remarked, after a number of years on the bridge 'a mystical appreciation of what sea warfare was all about could be expected to descend on the head of the efficient naval officer, rather in the manner of the Holy Ghost'.²⁴ The 'primacy of practical experience' argument commended itself to basic instincts of action and

courage within an officer corps which, despite its immersion in a puzzling array of new weaponry, apparently perceived the academic study of warfare as a process which would inevitably replace the fighting seaman with the bookworm.²⁵ The overwhelming view within the officer corps, wrote Lord Esher, was that 'history is written for schoolmasters and armchair strategists. Statesmen and warriors pick their way through the dusk'.²⁶

Thus, even by 1900, there was a widespread antipathy towards the theoretical and academic study of the naval profession, and while seamanship, gunnery and devotion to duty were of the highest order, it was noted by a contemporary observer that 'officers who made any real study of war from the point of view of Staff work were regarded as cranks and lunatics, hunters of soft jobs'.²⁷ It was hardly surprising therefore that the first major scholarly study of seapower emanated, not from Dartmouth or Greenwich, but from Annapolis lecturer, Captain A T Mahan USN,²⁸ and although his work was well received in Britain, it was in Germany and Japan that it became compulsory reading for all young officers. Despite being pre-eminent in the first four decades of the twentieth century the Royal Navy contributed remarkably little to the literature of maritime strategy or naval history, and the British sailor-scholar has been a notably rarer figure than his military counterpart. Even today, when the increasing complexity of maritime warfare would seem to imply a requirement for disciplined scrutiny, the academic component in British naval training is the shortest in NATO,²⁹ and the arguments of the 'School of Experience' are still powerfully advanced.³⁰

It will be seen that many of the qualities associated with the late Victorian and Edwardian officer corps were derived, at least in part, from the system of education founded and developed in the period of this study. In addition, some of the distinguishing characteristics - high professional standards, exclusivity, the pursuit of gentlemanly ideals, the primacy of practical and operational experience, a distaste for academic or theoretical enquiry - have demonstrated not only a capacity to survive, but to become synonymous with an approach regarded amongst the World's navies, as quintessentially British.

These factors help to confirm the significance of the two decades from 1857 as the most important in the evolution of officer education in the Royal Navy. Not only was more progress made in the respective fields of initial and higher education than at any other time, but it was made, quite remarkably, against a background of public indifference, financial retrenchment and a general stasis in naval affairs. While it undoubtedly lacked cohesion and refinement, by 1877 educational provision not only stood in marked contrast to conditions at the start of the period, but also displayed hallmarks that were to remain imprinted on the officer corps of the Royal Navy to the present day.

Conclusion - Notes

1. Committee on the System of Training Cadets on Board HMS Britannia
(The Rice Report) C 1154(1875) p59
2. Committee on the Higher Education of Naval Officers Officers
(The Shadwell Report) C 203(1870) px
3. From 1876 to 1882 288 candidates sought entry to the Royal
Military College from universities. See G Harries-Jenkins
The Army in Victorian Society (1977) pl45
4. J R Soley Report on Foreign Systems of Naval Education (1880) p49
5. ibid p90
6. W Tute The True Glory (1983) pl55
7. W S Chalmers Life and Letters of David, Earl Beatty (1951) p99
8. A J Marder From the Dreadnought to Scapa Flow (1960) p405
9. ibid pl1
10. S Bonnett The Price of Admiralty (1968) pl25
11. A Temple Patterson Jellicoe (1969) pl6
12. A J Marder op cit p9
13. Far from being an anachronism, sail training has had a persistent
attraction for navies, large and small, up to the present day.
Navies operating sail training vessels, as part of a modern curriculum,
include Argentina, Chile, France, Germany, Mexico, Poland, Portugal,
Spain, Sweden and the USA.
- R Sharpe Jane's Fighting Ships 1993-1994 (1993)
14. D Leinster Mackay The Rise of the English Preparatory School (1984) p63
15. See ADM6/464 - 467, which list nominations by the Admiralty Board
from 1898 to 1917.

Conclusion - Notes (continued)

16. From 1877, young engineers were trained in the old line-of-battle ship HMS Marlborough moored in Portsmouth Harbour. Two years later a training school, eventually to become the Royal Naval Engineering College, was opened at Keyham, Plymouth.
17. G Penn Up Funnel, Down Screw (1955) pl33
18. ibid pl64
19. C M Dawson The Story of Greenwich (1977) p93
20. ibid p95
21. E S Turner Gallant Gentlemen: A Portrait of the British Officer
1600-1956 (1956) p293
22. As late as 1913 the Admiralty were still systematically examining and considering the evidence relating to the tactics employed by Nelson.
See Committee Report on the Battle of Trafalgar C.7120(1913)
23. G Till Maritime Strategy and the Nuclear Age (1982) p7
24. ibid
25. ibid
26. Esher, Viscount Journals and Letters of Reginald, Viscount Esher
1910-1915 Vol III (1938) p221
27. A J Marder op cit · p403
28. A J Mahan The Influence of Sea Power in History (1890)
29. R Bishop Dartmouth, the Cradle Naval Review July 1990 p238
30. A recent example being the abandonment of systematic naval history teaching at the Royal Naval College, Dartmouth, in response to 'demands for more technologically-based training to prepare midshipmen for the modern Navy' - see leading articles The Daily Telegraph and The Times 7th July 1987

Bibliography

This bibliography is arranged on the following plan:

A. Primary Sources

1. Manuscript
2. Manuscript and Printed (Mixed Collections)
3. Printed.
4. Newspapers and Periodicals

B. Secondary Sources

1. Books and pamphlets published before 1914
2. Books and pamphlets published after 1914.
3. Articles.
4. Theses.

A. Primary Sources

Manuscript - Personal Papers

The Childers Papers	Royal Commonwealth Society, London WC2
The Gladstone Papers	British Library Manuscript Collection London WC1
The Correspondence of Commodore James G Goodenough RN	Ministry of Defence Main Library (The Admiralty Library), London SW1
Papers of Sir Richard Vesey Hamilton, Admiral 1829-1912	National Maritime Museum, Greenwich, London SE10
Papers of Sir G T P Hornby Admiral of the Fleet 1825-1895	National Maritime Museum, Greenwich London SE10
The Tarleton Papers	Microfilm Section, Liverpool Central Library

Manuscript - Records

Library of the Royal Naval College, Greenwich, London SE10

Notes submitted to the Shadwell Committee (1870) concerning:

- (a) St Petersburg Naval School, Russia
- (b) Imperial Naval School, Brest, France
- (c) United States Naval Academy, Annapolis, USA.

Archive of the Britannia Royal Naval College, Dartmouth

Regulations for Punishment in HMS Britannia

Record of Conduct Books A1, A2, A3, A4

Regulations for HMS Britannia 1873 - 1877

Archive of the Royal Naval Museum, Portsmouth, Hants

Admiralty letter of 8th March 1861 instructing William Carslake to attend for examination for Naval Cadet at the Royal Naval College Portsmouth.

Certificate of examination, Naval Service Certificate and Lieutenant's Passing Certificate dated 19th October 1869 - William Foster Carslake.

Manuscript/Printed (Mixed Collections)

Admiralty Papers at the Public Record Office, Kew

ADM 1

5148, 5156, 5232, 5502, 5511, 5680, 5772, 5861, 5913
6031, 6104, 6105, 6110, 6121, 6122, 6123, 6124, 6157,
6179, 6183, 6206, 6207, 6232, 6235, 6236, 6286, 6293,
6330, 6331

ADM 3

286

ADM 6

464, 465, 466, 467

ADM 7

890, 891, 892, 893, 894

ADM 116

9/18, 9/185, 685, 861/16, 862

ADM 167

1, 2

ADM 203

1

Other Papers

PRO 30/61/1

Printed

Admiralty Papers at the Ministry of Defence Main Library
(The Admiralty Library) London SW1.

Manning of the Royal Navy. Report of a Committee of Naval
Officers 1852.

Report of the Committee on the Education of Cadets in the Royal Navy
(The Woolley Report) 1869.

Papers relating to Training of Naval Cadets. Pamphlet No 193 1875

Pamphlets - Education and Training No 852 1875 - 1882.

Report on the Education of Naval Officers and the Training
of Boys and Petty Officers in the German, Dutch, Swedish and Danish
Navies 1882.

Pamphlets and Miscellaneous Reports Vol 3 No 712 1885.

Regulations and Instructions relating to His Majesty's Service at Sea 1842.

Queens Regulations and Admiralty Instructions (QRRN) 1844, 1861, 1862

Naval Estimates published annually 1857-1877

Statistical Report of the Health of the Navy published annually 1857-1877

Navy List (correct to 20th September) published annually 1857-1877

Reports of Royal Commissions

Report of the Royal Commission to inquire into the best means of Manning the Navy 1859.

Report of the Commissioners appointed to inquire into the State of Popular Education in England 1861 Vol 1.

Report of the Royal Commission on the Control and Management of the Dockyards 1861.

Report of the Royal Commission on Scientific Instruction and the Advancement of Science Vol 1 1872.

Report of the Royal Commission on Technical Education 1884.

Reports of Select Committees

Report of the Select Committee to inquire into the constitution of the Board of Admiralty 1861.

Report of the Select Committee on Promotion and Retirement in the Royal Navy 1863.

Report of the Select Committee on Scientific Instruction 1868.

Report of the Select Committee on Education, Science and Art 1884.

Command Papers

Report of the Committee upon the Higher Education of Naval Officers (The Shadwell Report) c203 1870.

Report of the Committee on the System of Training Cadets on Board HMS Britannia (The Rice Report) c 1154 1875.

Report of the Committee to consider the Supply of Engineer Officers and Engine Room Artificers for Her Majesty's Navy (The Cooper Key Report) cl647 1877.

First Report of the Royal Naval College Greenwich cl672 1877.

Report of the Committee to advise as to the most desirable site for a College for Naval Cadets (The Wellesley Report) cl673 1877.

Report of the Committee appointed to enquire into the establishment of the Royal Naval College Greenwich (The Gordon Report) c1733 1877.

Regulations respecting Naval Cadets c2780 1881

Report of the Committee to enquire and report on the Education of Naval Executive Officers (The Luard Report) c4885 1886.

British Parliamentary Papers

1875 303 Statement concerning costs of educating Cadets in HMS Britannia.

313 Suitability of Dartmouth as a site for a Naval College.

328 Medical Report on the proposed site for a Naval College.

1876 196 Report of the Director of Naval Studies, Royal Naval College, Greenwich.

1877 142 Number of Cadets trained in HMS Britannia 1864-1877.

195 Correspondence relating to Cadet J E Lloyd RN.

299 Report of the Director of Naval Studies, Royal Naval Studies, Greenwich.

356 Correspondence concerning the ownership of the Mount Boone Estate, Dartmouth, Devon

1882 311 Expense of educating Cadets in HMS Britannia.

1884 94 Report of the Director of Naval Studies, Royal Naval College, Greenwich.

Parliamentary Debates

Hansard's Parliamentary Debates, Third Series.

<u>Volumes.</u>	XLV,	CLII,	CXCV,	CXCVII,	CXCIX,	CC,
	CCVI,	CCXI,	CCXV,	CCXIX,	CCXX,	CCXXII
	CCXXIII,	CCXXV,	CCXXVI,	CCXXXII,		
	CCXXXIV,	CCXXXV,	CCXXXVI.			

5. Newspapers and Periodicals

A Naval History of Our Times
Army and Navy Gazette
Blackwood's Magazine
Brassey's Naval Annual
Broad Arrow
Illustrated London News
Journal of the Royal United Service Institution
Macmillans Magazine
Mariners Mirror
Monthly Review
Naval Chronicle
Naval and Military Gazette
Naval Science
Nautical Magazine
The Naval Review
The Times
United Service Journal
United Service Magazine

B. Secondary Sources

Books and Pamphlets published before 1914
(published in London unless otherwise stated).

Anon	<u>Reports and Opinions of Officers on the Acts of Parliament and Admiralty Regulations for Maintaining Discipline and Good Order in the Fleet.</u>	1867
Anon	<u>The Origin and Constitution of the Admiralty and Navy Boards</u>	1884
Anon	<u>A Young Heart of Oak: Memories of Henry Boldero</u>	1891
Briggs J H	<u>Naval Administrations 1827-1892</u>	1897
Burroughs S M	<u>The Autobiography of Montagu Burroughs</u>	1908
Childers S	<u>The Life and Correspondence of H C E Childers</u>	1901
Columb P H	<u>A Memoir of Cooper-Key</u>	1898
Clowes W H	<u>A History of the Royal Navy VOL 7</u>	1903
Douglas H	<u>A Treatise on Naval Gunnery</u>	1851
Freemantle E R	<u>The Navy As I Have Known It</u>	1905

Goodenough V H	<u>Memoir of Commodore Goodenough</u>	1876
Hamilton R V	<u>Naval Administration</u>	1896
Harris R	<u>A Historical Sketch of the Several Means Adopted for the Education of Naval Officers</u>	1863
Laughton J K	<u>On the General European System of Naval Education</u>	1881
Mackenzie G	<u>The Royal Naval and Military Calendar</u>	1821
Byam-Martin T	<u>Letters and Papers VOL I</u>	1903
Morley J	<u>The Life of Gladstone VOL II</u>	1905
Moresby J	<u>Two Admirals</u>	1909
O'Byrne W R	<u>A Naval Biographical Dictionary</u>	1849
Seymour C H	<u>My Naval Career and Travels</u>	1911
Soley J R	<u>On Foreign Systems of Education</u> (Washington DC)	1880
Statham E P	<u>The Story of Britannia</u>	1904
Tupper R	<u>Reminiscences</u>	<u>ND</u>
<u>Books and Pamphlets published after 1914</u> (published in London unless otherwise stated).		
Anon	<u>The Naval Staff of the Admiralty - Staff Monograph</u>	1929
Armytage W H G	<u>400 Years of English Education</u>	1964
Bamford T W	<u>The Rise of the Public Schools</u>	1967
Barnett C	<u>Britain and Her Army</u>	1970
Bartlett C J	<u>Great Britain and Sea Power 1815-1853</u>	1963
Tilney Bassett A	<u>Gladstone's Speeches</u>	1916
Beresford C W D	<u>Memoirs of Lord Charles Beresford</u>	1914
Bond B (ed)	<u>Victorian Military Campaigns</u>	1967
Bonnett S	<u>The Price of Admiralty</u>	1968
Bourne K and Watt D C (eds)	<u>Studies in International History</u>	1967
Bridge C	<u>Some Recollections</u>	1918
Brodie B	<u>Sea Power in the Machine Age</u> (Princeton)	1941
Brown D K	<u>A Century of Ship Construction</u>	1983

Brown D K	<u>Before the Ironclad</u>	1990
Callender G	<u>The Naval Side of British History</u>	1924
Chalmers W S	<u>Life and Letters of David, Earl Beatty</u>	1951
Chambers B M	<u>Salt Junk</u>	1927
Lloyd C and Coulter J L S	<u>Medicine and the Navy</u> VOL 4	1963
Dawson C M	<u>The Story of Greenwich</u>	1977
De Chair D	<u>The Sea is Strong</u>	1961
Dundas C H	<u>An Admiral's Yarns</u>	1922
Erikson A B	<u>The Public Career of Sir James Graham</u>	1952
Esher, Viscount	<u>Journals and Letters of Reginald, Viscount Esher 1910-1915 Vol III</u>	1938
Fisher J	<u>Records</u>	1919
E L Davies and E J Grove	<u>The Royal Naval College, Dartmouth</u>	1980
Gathorne-Hardy J	<u>The Old School Tie - The Phenomenon of the English Public School (New York)</u>	1978
Horsfield J	<u>The Art of Leadership in War</u>	1980
Howarth D	<u>Sovereign of the Seas</u>	1974
Hughes E A	<u>The Royal Naval College Dartmouth</u>	1949
James W	<u>The Life of Admiral of the Fleet Sir Henry Oliver</u>	1956
Jordan G (ed)	<u>Naval Warfare in the Twentieth Century</u>	1977
Harries-Jenkins G	<u>The Army in Victorian Society</u>	1977
Kemp P (ed)	<u>The Oxford Companion to Ships and the Sea</u>	1976
Kennedy P M	<u>The Rise and Fall of British Naval Mastery</u>	1976
Kerr M	<u>Prince Louis of Battenburg</u>	1934
Lambert A	<u>Warrior: Restoring the World's First Ironclad</u>	1987
Lavery B	<u>The Ship of the Line</u>	1983
Lewis M	<u>England's Sea Officers</u>	1939
Lewis M	<u>The Navy of Britain</u>	1948
Lewis M	<u>The History of the British Navy</u>	1957
Lewis M	<u>A Social History of the Navy 1793-1815</u>	1960

Lewis M	<u>The Navy in Transition</u>	1965
Lloyd C C	<u>The Nation and the Navy</u>	1954
Leinster-Mackay D	<u>The Rise of the English Preparatory School</u>	1984
Mackay R	<u>Fisher of Kilverstone</u>	1973
Maclure J S	<u>Educational Documents, England and Wales 1816-1963</u>	1965
Preston A and Major J	<u>Send a Gunboat!</u>	1967
Marder A J	<u>From Dreadnought to Scapa Flow VOL I</u>	1960
Matthew H C G	<u>The Gladstone Diaries VOL VII</u>	1982
Newell P	<u>Greenwich Hospital - A Royal Foundation 1692-1983</u>	1984
Pack S W C	<u>Britannia at Dartmouth</u>	1966
Padfield P	<u>Rule Britannia</u>	1981
Parkes O	<u>British Battleships 1860-1950</u>	1966
Temple-Patterson A	<u>Jellicoe</u>	1969
Penn G	<u>Up Funnel, Down Screw!</u>	1955
Penn G	<u>Snotty. The Story of the Midshipman</u>	1957
Rasor E L	<u>Reform in the Royal Navy</u>	1976
Reader W J	<u>Professional Men</u>	1966
Richmond H W	<u>Sea Power in the Modern World</u>	1932
Rodger N A M	<u>The Admiralty</u>	1979
Rodger N A M	<u>Naval Records for Genealogists</u>	1988
Roskill S W	<u>Admiral of the Fleet Earl Beatty (New York)</u>	1981
Scott P	<u>50 Years in the Royal Navy</u>	1919
Sharpe R (ed)	<u>Jane's Fighting Ships 1993-1994</u>	1993
Shurman D M	<u>The Education of a Navy</u>	1965
Shurman D M	<u>Julian S Corbett</u>	1981
Spinner T J	<u>George Joachim Goschen - The Transformation of a Victorian Liberal</u>	1973
Summers D L	<u>HMS Ganges - Boys Training for the Royal Navy</u>	1966
Sweetman E	<u>The Educational Activities in Victoria of the Rt Hon H C E Childers (Melbourne)</u>	1940

Symons C (ed)	<u>New Aspects of Naval History</u>	1981
Taylor C	<u>The Sea Chaplains</u>	1978
Thomson D	<u>England in the Nineteenth Century</u>	1950
Till G	<u>Maritime Strategy and the Nuclear Age</u>	1982
Turner E S	<u>Gallant Gentlemen: A Portrait of the British Officer 1600-1956</u>	1956
Tute W	<u>The True Glory</u>	1983
Walker C J	<u>Young Gentlemen. The Story of the Midshipman</u>	1938
Warner O	<u>The British Navy. A Concise History</u>	1975
Wiener M J	<u>English Culture and the Decline of the Industrial Spirit 1850-1980</u>	1981
Winton J	<u>Hurrah for the Life of a Sailor!</u>	1977
Winton J	<u>The Naval Heritage of Portsmouth</u>	1989
Wonham A R	<u>Spun Yarns of a Naval Officer</u>	1917

3. Articles

Anon	Historical Sketch of the Royal Naval College Portsmouth	<u>Nautical Magazine</u> 1833
Anon	The Naval College at Greenwich	<u>United Service Magazine</u> Part One 1873
Anon	The Proposed College for Naval Cadets	<u>United Service Magazine</u> Part Three 1877
Anon	On Naval Education	<u>Macmillans VOL 37 Magazine</u> 1878
Ballard G A	Memoirs	<u>Mariners Mirror</u> VOL 61 1975
Callender G	An Educational Centenary	<u>Mariners Mirror</u> VOL 25 1939
Corbett J S	Naval Education	<u>Monthly Review</u> September 1902
Cowan I D	Certified Industrial Training Ships	<u>Journal of Educational Administration and History</u> VOL XVI No 1 1984
Dandeker C	Bureaucracy Planning and War: The Royal Navy 1880-1918	<u>Armed Forces and Society</u> VOL II 1984

Fitzgerald C C	Naval Education	<u>Journal of the</u> <u>Royal United</u> <u>Services</u> <u>Institution</u> VOL 29 1885
Goodenough J G	The Preliminary Education of Naval Officers	<u>Journal of the</u> <u>Royal United</u> <u>Services</u> <u>Institution</u> March 1871
Hope C W	The Education and Training of Naval Officers	<u>Blackwoods</u> <u>Magazine</u> November 1869
Johns A W	The Dockyard Schools and the Second School of Naval Architecture	<u>Engineering</u> 25 January 1929
Lant J L	The Spithead Naval Review of 1887	<u>Mariners Mirror</u> VOL 62 1976
Laughton J K	The Scientific Study of Naval History	<u>Journal of the</u> <u>Royal United</u> <u>Services Institu-</u> <u>tion</u> VOL 26 1883
Leinster-Mackay D	English Preparatory Schools 1837-92: The Institutionalisation of an Infrastructure	<u>History of</u> <u>Education</u> <u>Society Conference</u> <u>Papers</u> December 1981
Lewin W H	The Proposed Naval College at Dartmouth	<u>Journal of the Royal</u> <u>United Services</u> <u>Institution</u> VOL XLI 1897
Lloyd C C	The Origins of HMS <u>Excellent</u>	<u>Mariners Mirror</u> VOL 41 1955
Lloyd C C	The Royal Naval Colleges at Portsmouth and Greenwich	<u>Mariners Mirror</u> VOL 52 1966
Macleod N	Shipwright Officers of the Royal Dockyards	<u>Mariners Mirror</u> VOL 11 1925
Marder A J	The Origin of Popular Interest in the Royal Navy	<u>Journal of the</u> <u>Royal United</u> <u>Services</u> <u>Institution</u> February 1937
Murray O A R	The Admiralty	<u>Mariners Mirror</u> VOL 25 1939
Reddie J	On Manning the Navy	<u>Journal of the</u> <u>Royal United</u> <u>Services</u> <u>Institution</u> March 1867

- | | | |
|----------------------|---|--|
| Rodger N A M | The Dark Ages of the Admiralty -
Part One | <u>Mariners Mirror</u>
VOL 61 1975 |
| Rodger N A M | The Dark Ages of the Admiralty -
Part Two | <u>Mariners Mirror</u>
VOL 62 1976 |
| Ryder A P | The Higher Education of Naval Officers | <u>Journal of the
Royal United
Services
Institution</u>
June 1871 |
| Sandler S | In Deference to Public Opinion
The Loss of HMS <u>Captain</u> | <u>Mariners Mirror</u>
VOL 59 1973 |
| Sullivan F B | The Naval Schoolmaster during the
Eighteenth and Early Nineteenth
Century | <u>Mariners Mirror</u>
VOL 63 1977 |
| Sullivan F B | The Royal Academy at Portsmouth
1729-1806 | <u>Mariners Mirror</u>
VOL 63 1977 |
| Taylor R | Manning the Royal Navy:
The Reform of the Recruiting System | <u>Mariners Mirror</u>
VOL45 1959 |
| Tuke R | Prep School for Admirals -
Stubbington House School | <u>Hampshire Magazine</u>
April 1974 |
|
4. <u>Theses</u> | | |
| Baxter C F | Admiralty Problems during the Second Palmerston
Administration 1859-1865
- Georgia, USA, PhD 1965 | |
| Cowan I D | Industrial Schools and Training Ships with special
reference to the Humber Training Ship <u>Southampton</u>
- Hull MEd 1980 | |
| Crossick G | Social Structure and Working Class Behaviour -
Kentish London 1840-1880
- London PhD 1976 | |
| Dandeker D | A Study of the Process of Bureaucratisation:
The Royal Navy, State and Society 1780-1916
- Leicester PhD 1977 | |
| Dickinson H W | Officer Education in the Royal Navy with particular
reference to instruction at Sea 1806-1857
- London MA 1984 | |
| Logan K D | Admiralty Reform and Reorganisation 1868-1892
- Oxford PhD 1976 | |
| Sullivan F B | The Evolution and Development of Education in the
Royal Navy 1702-1902
- Reading PhD 1974 | |